

Compilation of MSDSs of the
products that make up the
“Generosa Plant Repotting
Bundle”

Generosa



PLANT FOOD | SEAWEED EXTRACT

SAFETY DATA SHEET

In accordance with Regulations (EC) n° 1907/2006, (EC) n° 1272/2008 and (EU) n° 453/2010
(Annex I)

SECTION 1

IDENTIFICATION OF SUBSTANCE AND COMPANY

1.1. Substance identifier

Substance name: *Ascophyllum nodosum*, extract

Product name: Plant Food | Seaweed extract

Product Code: 25063

CAS number 84775-78-0

CAS name: *Ascophyllum nodosum*, ext.

IUPAC name: *Ascophyllum nodosum*, extract

REACH registration number: 01-2120070500-70-0000

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

Relevant use(s): Plant strengthener/organic fertilizer/foliar spray for use in domestic gardening.

Uses advised against: There are no evidences of uses advised against.

1.3. Details of the supplier of the safety data sheet

Identification of the company (Distributor): Generosa, Lda.

Rua Professor João Barreira, 5 1º Dto, 1600-634 Lisboa, Portugal

Tel: +351 911982858

E-mail address of the competent person responsible for the Safety Data Sheet:

info@generosa.pt

Identification of the company (Manufacturer): BioAtlantis Ltd.

Clash Industrial Estate, Tralee, Co. Kerry, Ireland

Tel: +353 (0) 667 118 477, Fax: +353 (0) 667 119 802

info@bioatlantis.com



1.4. Emergency telephone number

Emergency telephone number (office hours): +351 916355838

Emergency Contact Name: Cristina Mota Capitão

Emergency Contact Times: Monday - Friday, 9am – 5pm (GMT)

SECTION 2

HAZARDS IDENTIFICATION

2.1 Classification of the substance

- Classification of the substance in accordance with Regulation (EC) n°. 1272/2008:

Hazard class	Class code and hazard category	Hazard statement	Hazard warning
Not classified			

- Classification in accordance with Directive 67/548/EEC:

Classification	Risk phrases
Not classified	

Potential adverse physicochemical, human health and environmental effects:

Under normal conditions of use, the substance does not cause adverse effects to humans and to the environment.

See also sections from 9 to 12.

2.2 Label elements

- Labelling in accordance with Regulation (EC) n°. 1272/2008:

GHS Pictogram: none

Signal word: none

Hazard Statement: none

Precautionary Statement: none

Other information:

If skin irritation occurs: Get medical advice/attention

Avoid breathing spray

Use personal protective equipment as required

Keep out of the reach of children

This product may stain skin upon prolonged exposure.



2.3 Other hazards (which do not result in the classification)

The substance does not fulfil the PBT and vPvB criteria.

SECTION 3

COMPOSITION/INFORMATION ON INGREDIENTS

Description:

Name of the component: *Ascophyllum nodosum* extract

Structural formula: Not applicable; *Ascophyllum nodosum*, ext. is an UVCB substance

Substance with Community OEL: NO

CAS name: *Ascophyllum nodosum*, ext.

CAS number: 84775-78-0

IUPAC name: *Ascophyllum nodosum*, extract

EC number: 700-983-2

Index number: n.a.

Other information: The substance is a UVCB substance, with a variable composition.

SECTION 4

FIRST AID MEASURES

4.1 Description of the first aid measures

Under normal circumstances, the product has no harmful effect. If irritation occurs, seek medical advice.

- Eye contact: Wash immediately with large amounts of water or normal saline for ≥ 15 minutes. Keep eyelid open during the washing. Get medical advice if adverse symptoms will appear.
- Skin contact: Remove contaminated clothing. Wash affected area with soap or mild detergent and large amount of water. Get medical advice if adverse symptoms will appear.
- Inhalation: Move the person to fresh air. Get medical advice if adverse symptoms will appear.
- Ingestion: Rinse mouth thoroughly. Get medical advice if adverse symptoms will appear.
- First Aid Responders: Wear rubber or nitrile gloves to prevent staining of skin.

4.2 Most important symptoms and effects (acute and delayed)

- Acute:

- Inhalation: May cause irritation.



- Skin: May be irritant for skin.
- Eyes: May cause irritation.
- Ingestion: may be harmful.

- Delayed:

- Delayed symptoms and effects are not known.

4.3 Indication of any immediate medical attention and special treatment needed

- Medical monitoring: Not foreseen.
- Antidotes, if known: Unknown.

SECTION 5

FIREFIGHTING MEASURES

This substance is non-flammable and non-explosive

5.1 Extinguishing media

- Suitable extinguishing media: Carbon dioxide, foam, powder and nebulized water. In the event of a fire, keep containers cool with water spray. Slippery in liquid form or when mixed with water.
- Unsuitable extinguishing media: Unsuitable extinguish media not known.

5.2 Special hazards arising from the substance

- Hazardous combustion products: Thermal decomposition or combustion may generate toxic and hazardous fumes of COx, NOx.

5.3 Advice for firefighters

- Technical actions for protection: Don't try to extinguish the fire without an autonomous respiratory device (SCBA) and protective adapted clothes.
- Special protective equipment for firefighters: Wear boots, overalls, gloves, eye and face protection and breathing apparatus. Equipment must be conformed with EN criteria and used in highest condition of protection on the basis of the information reported in the previous sub-sections. Firefighters should wear self-contained breathing apparatus and full fire-fighting turnout gear.

SECTION 6

ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel: No action shall be taken without suitable training. Evacuate personnel to safe areas. Ventilate areas. Remove all sources of ignition.



- For emergency responders: Stop the leak, if it can be done safely. Wear appropriate protective equipment (see Section 8) to minimize exposure to the product.

6.2 Environmental precautions

In case of accidental release in the environment avoid that the substance can reach drains, surface water and ground water and soil.

6.3 Methods and material for containment and cleaning up

- Containment techniques and clean- up procedures: Stop the spill if it can be done safely. Collect the material with mechanic means, wearing appropriate protective equipment, and store in a clean and appropriate waste disposal container. Wash the area with water.

- Small spills: May be washed to drain.
- Large spills: Contain spill with sand, sawdust, absorbent clay or similar material. Sweep up and transfer material into labelled containers for transfer to a safe place for disposal. Flush the area with plenty of water when all the spillage has been removed. This product will stain concrete.
- Drainage: Prevent the spillage from entering watercourses, sewers or drains if possible. Inform the authorities if gross contamination of water is threatened or occurs.

6.4 Reference to other sections See also section 8 and 13.

SECTION 7

HANDLING AND STORAGE

7.1. Precautions for safe handling

- Recommendations for handling: Handle in a well-ventilated place. Wear suitable personal Protection Equipment (see section 8). Keep the substance away from drains, surface or ground waters. If irritation occurs get medical advice/attention. Keep out of the reach of children. Avoid excessive handling which may cause staining of skin.

- Recommendations for personal hygiene: Do not eat, drink and smoke in the working areas. Wash hands after handling the substance. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Condition for safe storage including any incompatibilities.

- Recommendations for storage: It can be stored for 2 years in unopened containers. Avoid direct exposure to sunlight. Store in a cool, well ventilated, dry place. Keep containers tightly closed. Store in containers correctly labelled. Protect from frost. Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Recommendations for specific end use as plant strengthener/organic fertilizer/foliar spray for use in agriculture and horticulture: avoid contact with eyes, skin and inhalation of the vapours/fume/gas/mist/spray/dust.



SECTION 8

EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

- National/ European Occupational Exposure Limits: Not established.
- Other National/ European Occupational Exposure Limits: Not established.
- National/ European Biological Limits (BEI): Not established.
- Other National/ European Biological Limits (BEI): Not established.
- Recommended monitoring procedures: Measurements of the substance/s in the workplace must be carried out in accordance with standardized methods described by EN guidance.
- DNEL values:
 - DNELs for workers: No information available
 - DNELs for general population: No information available
- PNEC values
 - PNEC fresh water: 65.3 µg/L
 - PNEC water:
 - PNEC marine water: 6.53 µg/L
 - PNEC intermittent releases: 653 µg/L
 - PNEC sediment: No information available
 - PNEC soil PNEC: 4.7 µg/kg soil dw
 - PNEC for sewage treatment plant PNEC - STP: 1 mg/L

8.2. Exposure controls

Appropriate risk management measures, that must be adopted at the workplace, have to be selected and applied, following the risks assessment carried out by the employer, in connection with his working activity (in accordance with Directive 98/24/EEC). If the results of this evaluation show that the general and collective prevention measures are not sufficient to reduce the risk, and if you cannot prevent exposure to the mixture by other means, adequate personal protective equipments must be adopted, complying with the relevant technical EN standards.

Eye/Face protection: Wear eye protection. Eyewash facilities should be available.

Hands protection: Protective gloves, chemical-resistant according to EN 374.

Skin protection: Wear a water impermeable bodysuit to prevent staining of skin. Person carrying out disposal should wear PVC gloves.

Respiratory protection: Special protections are not required during the normal conditions of use. In case of handling of large quantities, wear masks with appropriate filters.



Environmental exposure controls: Prevent the product from reaching surface water or groundwater. Check the pH and the presence of surfactants.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance: Liquid

Colour: Black/ brown

Odour: Marine Odour

Threshold: Not determined

pH: 8.5 – 10.5

Melting point: > 300 °C, no decomposition.

Initial Boiling Point/Boiling Range: Not determined

Flash point: not available

Octanol-water partition coefficient: Log P = 3.3 at 22 °C

Flammability: not flammable

Relative density: 1.22 – 1.25 at 20°C

Water solubility: ≥99.5% water soluble at 20 °C

Surface tension: 51.1 mN/m at 20°C and 1000 mg/L

Explosive properties: non explosive

Oxidising properties: non oxidizing

Evaporation Rate: Not determined

Upper/lower flammability or OEL: Not determined

Vapour Pressure: Not determined

Vapour Density: Not determined

Decomposition Temperature: Not determined

9.2. Other information

Granulometry: After 5 minutes of shaking, over 93 % of the sample presents a particle size higher than 0.250 mm and no sample was found under the 0.045 mm sieve.

SECTION 10



STABILITY AND REACTIVITY

10.1. Reactivity

This substance is not reactive under normal conditions of storage.

10.2. Chemical stability

Substance is stable under normal conditions of temperature and pressure and if it is stored in closed containers in a well ventilated and cool place.

10.3. Possibility of hazardous reactions

Under normal conditions of storage and use, no hazardous reactions occur.

10.4. Conditions to avoid

Potential heat and ignition sources, moisture, direct sunlight, freezing.

10.5. Incompatible materials

Strong oxidizing and reducing agents. Do not mix with highly acidic chemicals. Oxidants and acids may cause degradation.

10.6. Hazardous decomposition products

Combustion may produce toxic and hazardous fumes (CO_x and NO_x).

SECTION 11

INFORMATION ON TOXICOLOGICAL EFFECTS

- Effects following the exposure:

- Dermal: may cause irritation.
- Ingestion: may cause irritation to the gastrointestinal mucous membranes.
- Inhalation: inhalation of the product may cause irritation to respiratory ways.
- Contact with eyes: may cause eye irritation.

- Acute Toxicity

- Oral: This information is not available.
- Dermal: This information is not available.
- Inhalation: This information is not available.

- Skin corrosion/ irritation: The substance is not irritant for the skin. (OECD Guideline 404)

- Serious eye damage/ irritation: The substance is not irritant for the eye. (OECD Guideline 405).

- Respiratory or skin sensitisation: This information is not available.

- Germ cell mutagenicity: The substance is not mutagenic in vitro test. (OECD Guideline 471 and 476)



- Carcinogenicity: This information is not available.
- Reproductive toxicity: This information is not available.
- Repeated dose toxicity: This information is not available.

Based on the available toxicological data, *Ascophyllum nodosum*, extract is not classified as a specific target organ toxicant (single exposure).

- STOT - repeated exposure: Based on the available toxicological data, *Ascophyllum nodosum*, extract is not classified as a specific target organ toxicant (repeated exposure).

- Aspiration hazard: There is no human evidence that *Ascophyllum nodosum*, extract may cause aspiration toxicity. Therefore, the substance is not classified as a Category 1 Aspiration hazard under the CLP and Harmful under DSD.

SECTION 12

ECOLOGICAL INFORMATION

12.1. Toxicity

Fish: *Danio rerio* LC50: > 100 mg/L/96h (OECD Guideline 203 and EPA OPPTS 850.1075)

Aquatic invertebrates: *Daphnia Magna* IC50: > 100 mg//48h (OECD Guideline 202 and EC 440/2008- Council regulation)

Algae and aquatic plants: *Selenastrum capricornutum*

- EC50 (yield rate): 60.35 mg/L/72 h (OECD Guideline 201)
- EC50 (growth rate): > 100 mg/L/72 h (OECD Guideline 201)

Terrestrial plants: *Zea mays*

- % inhibition (28 d): ca. 3 kg/ha length (cm) (estimated) based on: growth
- % inhibition (28 d): ca. 3 kg/ha weight (g) (estimated) based on: growth

12.2. Persistence and degradability

Ascophyllum nodosum, extract is readily biodegradable, even if failing the 10-days window; in fact, according to the respirometric test performed a % of biodegradation > 60% is reached within 17 days. The degradation products are naturally occurring elements. (OECD Guideline 301F and EU Method C.4-D)

12.3. Bioaccumulative potential

This information is not available.

12.4. Mobility in soil

This information is not available.

12.5. Results of PBT e vPvB assessment



Based on the assessment described in the subsections above the submission substance is not a PBT/ vPvB substance

12.6. Other adverse effects

Based on the available data, no other adverse effects are expected.

SECTION 13

DISPOSAL CONSIDERATION

13.1. Waste treatment methods

Any disposal practice must be in compliance with all local, national and Community laws and regulations. Send wastes to disposal (landfill or incinerator) or recycle them. Do not dump into any sewers, on the ground, or into any body of water.

SECTION 14

TRANSPORT INFORMATION

Not classified in accordance with ADR/RID, IMDG, IATA and DOT regulations.

SECTION 15

REGULATORY INFORMATION

All other information on regulation are reported if not provided in other sections/subsection of the Safety Data Sheet.

15.1 Safety, Health and Environmental regulation/legislation specific for the substance

The substance is not the subject of provisions.

15.2. Chemical Safety Assessment

A chemical safety assessment has been carried out.

SECTION 16

OTHER INFORMATION

All information appearing in this document was based on data provided by third party sources. The information is believed to be accurate as of the preparation date but is not warranted as being the final authority in the use of this product. This information does not purport to be legal or medical advice.

Revision n.08 dated 02/10/2015 (First Edition in accordance with Annex I of Regulation 453/2010/EU)



Bibliographic sources: *Ascophyllum nodosum* extract - Chemical Safety Report

Information concerning health, safety and environment, in accordance with Regulation (EC) No. 1272/2008:

H-Statements: None

P-Statements:

- P102: Keep out of reach of children
- P261: Avoid breathing spray
- P281: Use personal protective equipment as required
- P332/313: If skin irritation occurs: Get medical advice/attention

Information concerning health, safety and environment, in accordance with Directive 67/548/EEC and Regulation (EC) No 1907/2006:

R-Phrases: None

S-Phrases:

- S2: Keep out of the reach of children
- S23: Do not breathe spray
- S36/37/39: Wear suitable protective clothing, gloves and eye/face protection

Acronyms

- ADR: Agreement concerning the carriage of dangerous goods by Road
- BCF: Bioaccumulative factor
- CAS: Chemical Abstract Service (division of the American Chemical Society)
- CLP: Classification, Labelling and Packaging
- EINECS: European Inventory of existing Commercial Substances
- GHS: Globally Harmonised System
- IATA: International Air Transport Association Code
- IMDG: International Maritime Dangerous Goods Code
- IUPAC: International Union of Pure and Applied Chemistry
- N.A.: Not Applicable
- N.A.: Not Available
- NOAEL: No Observed Adverse Effect Level)
- PPE: Personal protective Equipment
- PBT: Persistent, Bioaccumulative and Toxic substances
- RID: Regulation concerning the International carriage of Dangerous goods by rail
- STOT: Specific Target Organ Toxicity



- TLV/TWA: Threshold Limit Value/Threshold Weighted Average
- vPvB: very Persistent, very Bioaccumulative

Restriction of use: None

Substance under authorisation: No

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SOIL FRESHENER | POTTING MIX

SAFETY DATA SHEET

In accordance with Regulations (EC) n° 1907/2006, (EC) n° 1272/2008 and (EU) n° 453/2010 (Annex I

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

1.1 Product Identifier

Product name: Freshener
Description: Potting Mix
Product Code: 23648

1.2 Relevant uses of the substance or mixture:

Planting media

1.3 Details of the supplier of the safety data sheet:

Identification of the company:
Generosa Comércio e Serviços
Rua Professor João Barreira, 5 1º Dto, 1600-634 Lisboa, Portugal
Tel.: +351 911982858

E-mail address of the competent person responsible for the Safety Data Sheet:

info@generosa.pt

1.4 Emergency phone number:

Emergency telephone number (office hours): +351 916355838

Emergency Contact Name: Cristina Mota Capitão

Emergency Contact Times: Monday - Friday, 9am – 5pm (GMT)

2. HAZARDS IDENTIFICATION

Labelling

Signal word:

No signal word

Precautionary Statements:

Keep away from children

Potential health effects

Eye contact:

Contact with eyes may cause irritation

Skin contact:

Irritation not expected.

Ingestion:

Considered practically non-toxic.

Inhalation:

May cause irritation of respiratory tract.

Aggravated Medical Conditions:

Inhalation may aggravate asthma. Pre-existing dermatitis or sores.



Principle routes of exposure: Skin, Upper respiratory tract

Target organ effects: Irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Products are made from organic materials, and contains living micro-organisms, including bacteria, fungi and protozoa.

4. FIRST AID MEASURES

Eye contact:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present after the first 5 minutes, then continue rinsing eye.
Skin contact:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice
Ingestion:	Call a poison control center or doctor for treatment advice Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious
Inhalation:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice

5. FIRE-FIGHTING MEASURES

Flammable properties:	May burn under fire conditions.
Suitable extinguishing media:	Water spray, carbon dioxide, dry chemical, chemical foam.
Firefighting procedures:	Select appropriate method to surround and extinguish fire In the event of fire, wear self-contained breathing apparatus

Special protective equipment for firefighters:

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Wear personal protective equipment
Environmental precautions:	No special environmental precautions required.
Methods for containment:	Clean up promptly by sweeping or vacuum.



Methods for cleaning up: Flush with water.

7. HANDLING AND STORAGE

Handling: Avoid container breakage
Storage: Keep containers tightly closed in a cool, well-ventilated place

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard

Personal Protective Equipment:

Eye/face protection: Protective eye wear is normally not required but suggested so contact can be avoided.
Skin and body protection: No special protective clothing is required under normal workplace conditions.
Respiratory protection: If airborne levels are high or product does not remain intact, use a combination of engineering controls (e.g. ventilation) and personal protection.
General hygiene considerations: Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid
Color: Dark brown
Solubility: Insoluble
Appearance: Soil-like
Odor: Earthy
Flash point: Not applicable

10. STABILITY AND REACTIVITY

Chemically Stable: Yes
Materials to avoid: None known
Conditions to avoid: Damp or wet conditions.
Hazardous decomposition products: Toxic fumes and gases may be generated. None.
Possibility of hazardous reactions: None

11. TOXICOLOGICAL INFORMATION

Acute toxicity
Eye effects: Contact with eyes may cause irritation



Skin effects: May cause skin irritation in susceptible persons Chronic toxicity

Carcinogenic effects: Not listed

12. ECOLOGICAL INFORMATION

Ecotoxicity effects: No known effects.
Persistence and degradability: Inherently biodegradable.
Bioaccumulative potential: Not applicable.
Mobility: The product is insoluble and sinks in water.
Aquatic toxicity: Not considered to be toxic to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods: In accordance with local and national regulations.

Contaminated packaging: Do not re-use empty containers.

14. TRANSPORT INFORMATION

The mixture is not classified under transport regulations

15. REGULATORY INFORMATION

This substance is classified EC Fertiliser Regulations 2003, Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

16. OTHER INFORMATION

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