SAFETY DATA SHEET

Material: Acadian Soluble Seaweed Extract Powder
SDS revision: November 2014
SDS reference: ANP.ORG.9.6.EU.1114

1.0 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

1.1 Product identifier

Ascophyllum nodosum Soluble Seaweed Extract Powder

1.2 Relevant identified uses of the substance or mixture and uses advised against

Used as a fertilizer to supplement a well-balanced crop nutrition program.

1.3 Details of the supplier of the safety data sheet

Company name: Organic Crop Protectants Pty Ltd
Address: Unit 1/61 Turrella St., TURRELLA NSW 2205
Contact person: Gary Leeson

1.4 Emergency telephone number

1800 634 204

2.0 HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

The product is not classified as dangerous according to the criteria of the Dangerous Substances Directive (67/548/EEC). The product is not classified as dangerous according to the criteria of the REGULATION (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures.

2.2 Label elements

The product does not require any specific labelling elements to identify hazards.

2.3 Other hazards

The product does not have any other hazards.

3.0 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Classification</th>
<th>Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ascophyllum nodosum ext.</td>
<td>84775-78-0</td>
<td>283-907-6</td>
<td>No classification</td>
<td>100% w/w</td>
</tr>
</tbody>
</table>
4.0 FIRST AID MEASURES

4.1 Description of first aid measures

General: Product is not hazardous. If irritation or discomfort occurs, medical advice should be sought.

Inhalation: Product is not toxic. Vapours should not be intentionally breathed in.

Eye contact: Product is not irritating to eyes. On contact, eyes should be held open and flushed with plenty of water. Should any irritation occur, medical attention should be sought.

Skin contact: Product is not irritating to skin. On contact, skin should be washed with mild soap and water. Should any discomfort occur, medical attention should be sought.

Ingestion: Product is not toxic if ingested. On ingestion, plenty of water or milk should be drunk. Should any discomfort occur, medical attention should be sought.

4.2 Most important symptoms and effects, both acute and delayed

See 4.1. No information on any delayed effects.

4.3 Indication of any immediate medical attention and special treatment needed

Medical attention should be sought if any irritation or discomfort occurs.

5.0 FIRE FIGHTING MEASURES

5.1 Extinguishing media

Use appropriate media (water, foam, dry powder or CO₂) for surrounding the fire. Note: Product can be slippery in liquid form or when in combination with water.

5.2 Special hazards arising from the substance or mixture

No special hazards arising.

5.3 Advice for fire-fighters

Please note, the product can become slippery when in liquid form or when in combination with water.

6.0 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Gloves and eye protection should be worn when undertaking any clean up due to temporary staining.

6.2 Environmental precautions

No specific precautions are required, as the product is not considered to pose an environmental hazard.

6.3 Methods and material for containment and cleaning up

Spills may be easily cleaned by removing as much solid as possible and washing the spill area using copious amounts of water. Loose product should not be left on the floor in damp areas due to the product becoming slippery when in combination with water.

6.4 Reference to other sections

Refer also to sections 8 and 13.
7.0 HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid handling, as this may cause staining. Specific personal protective equipment is stated in section 8.

7.2 Consideration for safe storage, including any incompatibilities

Store in a cool place and out of direct sunlight. Do not contaminate water, food or feed by storage or disposal.

7.3 Specific end uses

Refer to subsection 1.2

8.0 EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workplace exposure limits:</td>
<td>None assigned</td>
</tr>
<tr>
<td>DNEL (derived no effect level):</td>
<td>Not yet established</td>
</tr>
<tr>
<td>PNEC (predicted no effect concentration):</td>
<td>Not yet established</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

**General:** Check workplace instructions/procedures and risk assessments for any exposure control and personal protective equipment requirements (eg COSHH assessments). Exposure control measures and personal protective equipment specified in these risk assessments should take precedence over the more general recommendations below because they take into account highly variable factors specific to the workplace and activity concerned which cannot be anticipated in a safety data sheet. Otherwise:

**Engineering controls:** There are no specific ventilation requirements. Eyewash facilities should be available.

**Respiratory protection:** No specific requirements.

**Eye protection:** Eye protection such as safety glasses should be worn when handling due to possible temporary staining.

**Skin protection:** Chemically resistant gloves, e.g. rubber, neoprene, butyl, PVC or nitrile, should be worn to protect against temporary staining.

**Environmental:** Refer to section 6.2.

**General hygiene:** Remove all protective equipment before eating, drinking or smoking, and before entering any ‘clean’ areas. Hands should be washed immediately after any contact with the product. All protective equipment should be cleaned before removal where practical and before re-use – if not possible, they should be disposed of as chemical waste (refer to section 13).
9.0 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Black powder</td>
</tr>
<tr>
<td>Odour</td>
<td>Marine-like</td>
</tr>
<tr>
<td>pH</td>
<td>10 – 10.5</td>
</tr>
<tr>
<td>Melting point</td>
<td>°C</td>
</tr>
<tr>
<td>Initial boiling point</td>
<td>°C</td>
</tr>
<tr>
<td>Boiling range</td>
<td>°C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td></td>
</tr>
<tr>
<td>Bulk density</td>
<td>g/cm³</td>
</tr>
<tr>
<td>Vapour density</td>
<td>air = 1</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>mm Hg</td>
</tr>
<tr>
<td>Viscosity</td>
<td>cp/s</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>°C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>°C</td>
</tr>
<tr>
<td>Flash point</td>
<td>°C</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td></td>
</tr>
<tr>
<td>Flammability limits in air</td>
<td>%</td>
</tr>
<tr>
<td>Explosivity limits in air</td>
<td>%</td>
</tr>
<tr>
<td>Explosive potential</td>
<td></td>
</tr>
<tr>
<td>Oxidising potential</td>
<td></td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Fully soluble</td>
</tr>
<tr>
<td>Solubility in other</td>
<td>g/ml</td>
</tr>
<tr>
<td>Log water/octanol partition coefficient</td>
<td></td>
</tr>
</tbody>
</table>

9.2 Other information

No data available on fat solubility, conductivity, redox potential, radical formation potential or photocatalytic properties.

10.0 STABILITY AND REACTIVITY

10.1 Reactivity

Product is not reactive under normal circumstances.

10.2 Chemical stability

Product is stable under normal circumstances. Oxidants and acids can cause degradation of the product.

10.3 Possibility of hazardous reactions

Product is not reported to undergo hazardous reactions.

10.4 Conditions to avoid

Oxidants and acids may cause degradation of the product.

10.5 Incompatible materials

Oxidants and acids may cause degradation of the product.

10.6 Hazardous decomposition products

Not applicable.
11.0 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Exposure route</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No effect</td>
</tr>
<tr>
<td>Skin</td>
<td>No effect</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Non-toxic. Significant ingestion may cause nausea and discomfort.</td>
</tr>
</tbody>
</table>

Specific target organ effects (single and repeated exposure)

<table>
<thead>
<tr>
<th>Exposure route</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No effect</td>
</tr>
<tr>
<td>Skin</td>
<td>No effect</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No effect</td>
</tr>
<tr>
<td>General</td>
<td>No effect</td>
</tr>
</tbody>
</table>

CMR (carcinogenicity, mutagenicity, reproductive toxicity)

<table>
<thead>
<tr>
<th>Exposure route</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcinogenicity</td>
<td>No effect</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>No effect</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>No effect</td>
</tr>
</tbody>
</table>

Corrosivity and irritancy

<table>
<thead>
<tr>
<th>Exposure route</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No effect</td>
</tr>
<tr>
<td>Eyes</td>
<td>No effect</td>
</tr>
<tr>
<td>Skin</td>
<td>Very slight erythema with no other signs of irritation</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No effect</td>
</tr>
</tbody>
</table>

12.0 ECOTOXICOLOGICAL INFORMATION

12.1 Toxicity

Non-toxic to marine algae, vertebrates or invertebrates.

12.2 Persistence and degradability

Product is fully biodegradable.

12.3 Bioaccumulation potential

Due to its biodegradability, the product presents minimal bioaccumulation potential, and therefore minimal environmental impact.

12.4 Mobility in soil

No data.

12.5 Results of PBT and vPvB assessment

Product exhibits no PBT or vPvB properties.

12.6 Other adverse effects

No additional adverse effects.
13.0 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Handling: Product is not hazardous – please refer to sections 7 and 8 for further details on hazardous waste.

Material: The material is non-hazardous, and should be disposed of in accordance to local, regional or national regulations.

Packaging: Contaminated packaging must be disposed of in accordance to local, regional or national regulations.

Regulations: Relevant local, regional and national regulations should be complied with.

14.0 TRANSPORT INFORMATION

The product is non-hazardous. Therefore, no specific precautions are necessary.

14.1 UN number Not available

14.2 UN proper shipping name Not available

14.3 Transport hazard class(es) Not applicable

14.4 Packing group Not applicable

14.5 Environmental hazards Unclassified

14.6 Special precautions for user No special precautions required

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No specific information required

15.0 REGULATORY INFORMATION

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

UK workplace risk assessment: The product is not subject to any workplace risks.

REACH: The main ingredient in the product is Ascophyllum nodosum extract, for which a REACH registration has been completed. Reference Number: 01-2119575389-21-0001

15.2 Chemical safety assessment

A chemical safety assessment has not yet been carried out for this product.

16.0 OTHER INFORMATION

Abbreviations used in this SDS:

67/548 EEC: The Dangerous Substances Directive
CLP: Classification, Labelling and Packaging Regulation
UN: United Nations Model Regulations on the Transport of Dangerous Goods

Text of R-phrases, hazard statements, S-phrases and precautionary statements referred to in this SDS:

Product is not classified, therefore no further information on classification details is required.

Disclaimer: The information contained herein is in good faith but makes no claim as to its comprehensiveness or accuracy. This document is intended only as a guide for a properly trained person to safely handle the product. Recipients of the information must exercise their independent judgment in determining its appropriateness for a particular purpose. Organic Crop Protectants Pty Ltd makes no representations or warranties, either expressed or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set out herein or the product to which the information refers. Accordingly, Organic Crop Protectants Pty Ltd will not be responsible for damage resulting from use of or reliance upon this information.