MATERIAL SAFETY DATA SHEET

ACADIAN® Marine Plant Extract Powder

1. PRODUCT AND COMPANY

TRADE NAME: ACADIAN® Marine Plant Extract Powder
APPLICATION: Extract from algae (Ascophyllum nodosum)
Producer/Importer: Acadian AgriTech
Address: 30 Brown Avenue
Postal Code & City: Dartmouth, Nova Scotia, Canada, B3B 1X8
Telephone: (902) 468-2840
Fax: (902) 468-3474
Contact Person: David Hiltz
Issued By: Technical Department (Acadian AgriTech)

2. COMPOSITION OF PRODUCT

<table>
<thead>
<tr>
<th>No.</th>
<th>Ingredients Name</th>
<th>CAS-NO</th>
<th>Cons. (weight%)</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Extract from algae</td>
<td>n/a</td>
<td>100%</td>
<td>IK</td>
</tr>
</tbody>
</table>

Legend:

T+ = Very Toxic, T = Toxic, C = Corrosive, Xn = Harmful, Xi = Irritant,
IK = No Classification Required, E = Explosive, O = Oxidizing, F+ = Extremely Flammable, F = Very Flammable, Fo = Flammable, N = Dangerous to Environment, Mu = Genotoxic, Sens = Sensitizing, Care = Carcinogen, Repr = Causes Birth Defects

3. HAZARD IDENTIFICATION

This product does not require labeling.
4. FIRST AID

GENERAL
Non-hazardous material. If irritation or discomfort occurs, seek medical advice from a physician.

EYE CONTACT
Non-irritating to ocular tissue. Immediately flush eyes with plenty of water. Keep eyes wide open while flushing. Seek medical attention if irritation occurs.

SKIN CONTACT
Non-irritating to skin. Wash with mild soap and water. Seek medical attention if discomfort occurs.

INHALATION
Non-toxic. Do not intentionally breathe vapors.

INGESTION
Non-toxic if ingested. Drink plenty of water or milk. Seek medical attention if discomfort occurs.

OVER EXPOSURE
Not applicable.

5. FIRE FIGHTING MEASURES

FLASH POINT
Not applicable.

FLAMMABLE LIMITS
Not applicable.

PROPER FIREFIGHTING EQUIPMENT
Use extinguishing media appropriate for surrounding fire. Caution: Slippery in liquid form or when mixed with water.

FIRE AND EXPLOSION HAZARDS
Non-flammable. Non-explosive.

6. UNINTENTIONAL LIBERATION OR RELEASE MEASURES

SAFETY MEASUREMENTS TO PROTECT PERSONS
Gloves and eye protection should be worn when handling due to temporary staining.

PROPER METHODS FOR DAMAGE LIMITATION AND CLEANUP
Spills may be easily cleaned by removing as much solid as possible and washing remaining spill with copious amounts of water. Avoid loose product on floor in damp areas as product may become slippery with the addition of clean-up water. Gloves and eye protection should be worn due to temporary staining.
7. HANDLING AND STORAGE

HANDLING ADVICE
Avoid handling which may cause staining. Use personal protective equipment as specified in section 8.

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

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

EXPOSURE CONTROL
No specific ventilation requirements. Eyewash facilities should be available.

RESPIRATION PROTECTION
No respirator is required.

EYE PROTECTION
Eye protection should be worn when handling due to temporary staining.

HAND PROTECTION
Gloves should be worn when handling due to temporary staining.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Powder</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Odor</td>
<td>Marine-like</td>
</tr>
<tr>
<td>Solubility</td>
<td>100% Water Soluble</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Expl. Limit LEL-UEL. %-%</td>
<td>n/a</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>n/a</td>
</tr>
<tr>
<td>Decomposition Temp.</td>
<td>Not Determined</td>
</tr>
<tr>
<td>pH Value</td>
<td>10 - 10.5 (10% solution)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>n/a</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>n/a</td>
</tr>
<tr>
<td>Ignition Temp.</td>
<td>550°C</td>
</tr>
<tr>
<td>Rel. Vapor Density (air=1)</td>
<td>n/a</td>
</tr>
<tr>
<td>Air Reactive</td>
<td>n/a</td>
</tr>
<tr>
<td>Percent Volatile (by Volume)</td>
<td>n/a</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>0.65 g/cm³</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>100% at 20°C</td>
</tr>
<tr>
<td>Saturation Conc.</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Rel. Density Sat. Air (Air=1)</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>Not Determined</td>
</tr>
<tr>
<td>pH Concentrate</td>
<td>10</td>
</tr>
<tr>
<td>Viscosity</td>
<td>n/a</td>
</tr>
<tr>
<td>Smelling Limits lo-hi</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Rel. Evap. Velocity</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Water Reactive</td>
<td>n/a</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

STABILITY
Product is stable.

CONDITIONS TO AVOID
Excessive heat or freezing.

MATERIALS TO AVOID
Oxidants and acids may cause degradation.

HAZARDOUS DECOMPOSITION PRODUCTS
Not applicable.

HAZARDOUS POLYMERIZATION
Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY
Non-toxic orally. Ingestion of significant amounts may cause nausea and discomfort.

ACUTE OCULAR TOXICITY
Non-irritating to the ocular tissue of non-irrigated eyes.

ACUTE DERMAL TOXICITY
Not toxic dermally. No treatment-related effects were observed.

ACUTE DERMAL IRRITATION
No irritation or corrosive effects were observed.

INHALATION TOXICITY
Not hazardous by inhalation.

SKIN SENSITIZATION
Very slight erythema observed with no other signs of irritation.

12. ECOLOGICAL INFORMATION

BREAKDOWN
Biodegradable. Product presents minimal environmental impact.

ECOTOXICITY
Plant nutritional supplement and growth stimulant, high concentrations may cause burn of plants. Non toxic to marine algae, vertebrates or invertebrates.
13. DISPOSAL CONSIDERATIONS

Not classified as hazardous waste. Product must be disposed of according to Federal, State or local procedures.

14. TRANSPORT INFORMATION

GENERAL
Non-hazardous material according to transport regulations. No special precautions are necessary.

15. REGULATORY INFORMATION

COMPOSITION
Extract from algae (*Ascophyllum nodosum*)

R-PHRASES
The product does not require labeling. Marking according to hazardous product regulations is not required.

REFERENCES
The MSDS is prepared on basis of information given by the manufacturer.

16. OTHER INFORMATION

ISSUED: November 2011

VENDOR NOTES
Every endeavor has been made to ensure that the information contained in this MSDS leaflet is reliable, but we cannot accept liability for any loss, injury or damage, which may result from its use or misuse. Data given in this MSDS is solely for the guidance in safe handling and use of the product by customers; they do not form part of any specification. If any difficulties arise, we shall be glad to discuss them. Customers are encouraged to conduct their own tests following discussion with our technical department. The above information is based on experience, but it is always advisable for customers to satisfy themselves, by consultation with our technical department and small-scale testing is necessary, that product, which they have selected, is suitable for their purpose under their conditions of use.