

1. PRODUCT IDENTIFIER and CHEMICAL IDENTITY

Product Name: **BioMAX Kelp Powder**

LawrieCo Pty Ltd

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Emergency Contact

LawrieCo Technical Manager:
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Poisons Information Centre:
(Australia) 13 11 26

| | | | |
|------------|------------|--------------|------------|
| CAS Number | 84775-78-0 | Product Code | KELP-ORG20 |
|------------|------------|--------------|------------|

Product description, recommended use and restrictions on use: *Ascophyllum nodosum* soluble seaweed extract powder. Used as a fertiliser biostimulant and supplement to a balanced crop fertiliser program.

2. HAZARD IDENTIFICATION

Classified as a Non-Hazardous Substance in accordance with Safe Work Australia - Hazardous Substances Information System (HSIS) Australia, Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Not a Scheduled Poison in accordance with the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Not Classified as Dangerous Goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG).

GHS Classification **Non-Hazardous**
SUSMP **Not Classified as a Scheduled Poison**
ADG **Not Classified as Dangerous Goods**

Precautionary Statements (GHS)

General

P101 If medical advice is needed, have the product container or label on hand
P102 Keep out of reach of children.
P103 Read label before use.

Prevention

P261 Avoid breathing dust.
P264 Wash skin thoroughly after handling.

Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

Additional Non-GHS Hazard Statements

None

3. COMPOSITION / INFORMATION ON INGREDIENTS

Product name BioMAX Kelp Powder **CAS Number** Mixture **Product Code** KELP-ORG20

| Ingredients | Name | CAS Number | Proportion w/w |
|--------------------|-----------------------------|-------------------|-----------------------|
| | Ascophyllum nodosum extract | 84775-78-0 | >93,5% |
| | Water (moisture) | 7732-18-5 | <6,5% |

4. FIRST AID MEASURES

Description of necessary first aid measures

- Inhalation** Product is non-toxic. It may cause irritation of mucous membranes and respiratory system if breathed in. If breathing is difficult, seek medical advice.
- Ingestion** Never give anything by mouth to an unconscious person. Rinse mouth out with water and give plenty of water to drink. Do NOT induce vomiting. Consult a doctor if any symptoms occur.
- Eyes** If in eyes, hold eye lids apart and flush continuously with running water. Remove contact lenses, if present and easy to do so. Continue flushing for at least 15 minutes. If eye irritation persists get medical advice/attention.
- Skin and hair** Wash hands thoroughly after use. If any skin or hair contact occurs wash thoroughly with water and soap. Consult a doctor if any skin irritation occurs.
- First aid facilities** Clean water supply, soap or skin cleaner and eyewash.
- Advice to doctor** If poisoning occurs, consult with the Poisons Information Centre (phone 13 11 26). Have a copy of this safety data sheet or label available. Treat symptomatically.



Symptoms caused by exposure

May cause irritation of the mucous membranes, respiratory system, and eyes. For more information see section 11- Toxicological Information.

Medical attention and special treatment

Wash exposed skin and hair with water and soap. If swallowed give plenty of water. If in eyes flush continuously with running water for at least 15 minutes. If any symptoms occur get medical advice/attention. No special treatment required.

5. FIRE FIGHTING MEASURES

Suitable extinguishing equipment

Appropriate extinguishing media include water, water spray, foam, dry chemical or carbon dioxide. Use suitable extinguishing agent for the surrounding fire.

Specific hazards arising from the chemical fire
Special protective equipment and precautions for fire fighters

Product is a non-flammable powder.
Combustion may produce irritants and toxic gases including - CO_x and SO_x. Do not breathe smoke or fumes. For more information see section 10- Stability and Reactivity.
Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves). No HAZCHEM Code assigned.
Product can become slippery in liquid form or in combination of water.



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| Further information | Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. |
| Flash Point | No data available |
| Lower Explosion Limit | No data available |
| Upper Explosion Limit | No data available |
| Auto Ignition Temperature | No data available |
| Hazchem Code | No Hazchem code assigned. |

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Product is non-hazardous. Avoid creating and breathing dust. For personal protection see section 8- Exposure Controls and Personal Protection.

Environmental precautions

Prevent product from entering waterways, sewage and drains. Collect all residues immediately. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management. For any queries consult Local Statuary Authorities.

Methods and materials for containment and cleaning up

Unless contaminated, use spilled product as it's intended use as a fertiliser. Sweep up and shovel into suitable containers for reuse. Cover drains. Contain and sweep/shovel up spills with dust binding material. Keep labelled in suitable, closed containers for the safety of persons conducting disposal, recycling or reclamation activities. Product can become slippery in liquid form or in combination with water. For any queries consult the local council and/or state environment authorities.



7. HANDLING and STORAGE

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|---|---|
| Precautions for safe handling | Avoid contact with eyes. Avoid breathing dust. Ensure eyewash and clean water available and ready for use. For personal protection see section 8- Exposure Controls and Personal Protection. Normal measures for preventative fire protection. Avoid spills. Handle in accordance with good industrial hygiene and safety practices. After use and before eating, drinking or smoking, remove contaminated clothing and wash hands before breaks and at the end of the work day. Keep out of reach of children. |
| Conditions of safe storage and incompatibilities | Containers must be clearly labelled. Store at room temperature. Keep container tightly closed out of direct sunlight. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10- Stability and Reactivity. |
| Specific end uses | Apart from uses mentioned in section 1- Product Identifier and Chemical Identity, no other specific uses are stipulated. |

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational Exposure Standards

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|---|---|
| Exposure standards TWA (8 hour) | There are no assigned exposure standards for this product. TWA = No data available for this mixture, however the HSIS specifies 10mg/m ³ (for inspirable dust) and 3mg/m ³ (for respirable dust). |
| Exposure standards STEL (15 min) | There are no assigned exposure standards for this product. STEL = No data available for this mixture, however the HSIS specifies 10mg/m ³ (for inspirable dust) and 3mg/m ³ (for respirable dust). |
| Biological limited values | There are no known Biological Limited Values that have been assigned. |
| Engineering controls | Handle in accordance with good industrial hygiene and safety practices. Wash hands before breaks and at the end of the work day. Keep unused product in a sealed container. Reduce creation of dust. A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. |

Personal Protection

Inhalation
AS –NZS 1715/1716

If dust may be inhaled wear a class P1 or P2 particle respirator. Use respirators and components tested and approved under appropriate government standards.

Eye
AS –NZS 1336/1337

Safety glasses fitted with side shields should be worn at all times during the handling and application period. Do NOT wear contact lenses. Use equipment tested and approved under appropriate government standards.

Gloves
AS –NZS 2161

Handle with impervious gloves (rubber, pvc or nitrile). Gloves must be inspected prior to use. Wash and dry hands after use.

Footwear
AS –NZS 2210

It is advisable to wear enclosed footwear during handling.

Clothing
AS –NZS 3765

It is advisable to wear protective clothing during handling.

Hearing
Other Requirements

Hearing protection not required.

The type of protective equipment must be selected according to the concentration and amount of substance at the specific workplace. Avoid unnecessary contact with eyes and after application, wash skin thoroughly with soap and water.



9. PHYSICAL AND CHEMICAL PROPERTIES

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|--|-------------------|
| Appearance (<i>physical state, colour, etc</i>) | Black powder |
| Odour | Marine like |
| Odour threshold | No data available |
| pH (<i>1:5 in water @ 20°C</i>) | 10.0 – 10.5 |
| Melting point | No data available |
| Freezing point | No data available |
| Boiling point and boiling range | No data available |
| Flash point | No data available |
| Evaporation rate | No data available |
| Flammability (<i>solid, gas</i>) | No data available |
| Upper/lower flammability or explosive limits | No data available |
| Vapour pressure | No data available |
| Vapour density | No data available |
| Relative Density | 0.65 |
| Solubility | 100% soluble |
| Partition coefficient: n-octonal/water | No data available |
| Auto-ignition temperature | 550 °C |
| Decomposition temperature | No data available |
| Viscosity | No data available |
| Specific heat value | No data available |
| Saturated vapour concentration | No data available |
| Release of invisible flammable vapours and gases | No data available |
| Particle size (<i>average and range</i>) | No data available |
| Size Distribution | No data available |
| Shape and aspect ratio | No data available |
| Crystallinity | No data available |
| Dustiness | No data available |
| Surface area | No data available |

| | |
|---|-------------------|
| Degree of aggregation or agglomeration, and dispersibility | No data available |
| Redox Potential | No data available |
| Biodurability or biopersistence | No data available |
| Surface coating or chemistry | No data available |
| Volatile organic compounds | No data available |
| % volatile | No data available |

10. STABILITY AND REACTIVITY

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|---|---|
| Reactivity | No data available - recommend avoiding strong oxidisers and acids. |
| Chemical stability | Stable under recommended storage conditions. Decomposes under high temperature. |
| Possibility of hazardous reactions | Will not polymerise. Possible combustion in contact with strong oxidisers. |
| Conditions to avoid | Avoid excessive temperatures (70°C). Contact with incompatible materials. |
| Incompatible materials | Strong oxidising agents and acids. |
| Hazardous decomposition products | In the event of combustion or high temperatures carbon oxides (CO _x) and sulphur oxides (SO _x) may be formed. In the event of fire see section 5- Fire Fighting Measures. |

11. TOXICOLOGICAL INFORMATION

| Ingredient: Kelp Powder – <i>Ascophyllum nodosum</i> | | Information Sources: No data available |
|--|--|---|
| Concentration | >93.5% by weight. | |
| Acute oral toxicity | OECD Test Guideline 420, 423 or 425 No data available | |
| Acute dermal toxicity | OECD Test Guideline 402 No data available | |
| Acute inhalation toxicity | OECD Test Guideline 403, 436 No data available | |
| Specific Target Organ Toxicity STOT - repeated exposure | No data available | |
| Specific Target Organ Toxicity STOT - single exposure | No data available | |
| Skin corrosion/irritation | May cause mild skin irritation. | |
| Serious eye damage/irritation | May cause mild eye irritation. | |
| Respiratory or skin sensitisation | Not a skin sensitiser. Respiratory, no data available. | |
| Germ cell mutagenicity | OECD Test Guideline 474 No data available | |
| Carcinogenicity | Not identified as a probable, possible or confirmed human carcinogen by IARC. OECD Test Guideline 451 - no data available | |
| Reproductive Toxicity | No data available | |
| Aspiration hazard | No data available | |
| Possible routes of exposure | Inhalation, eye contact and ingestion. | |
| Signs and Symptoms of exposure | Irritation of the mucous membranes, respiratory system, and eyes. | |
| Other information | Ingestion may cause diarrhea and vomiting. | |

12. ECOLOGICAL INFORMATION

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|--------------------------------------|--|
| Ingredient | Kelp Powder – <i>Ascophyllum nodosum</i> |
| Ecotoxicity | Non-toxic to marine algae, vertebrates or invertebrates. |
| Bioaccumulative potential | No data available. Due to its biodegradability, the product presents minimal bioaccumulation potential. |
| Persistence and degradability | No data available. Product is completely biodegradable. |
| Mobility in soil | No data available. This product is very soluble and likely to spread in soil. |

Other adverse effects Do NOT let reach product reach waterways, drains or sewers. The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13. DISPOSAL CONSIDERATIONS

Physical/Chemical Properties that may affect disposal

Product is biodegradable but should be kept out of biological systems other than its intended use as a fertiliser.

Disposal Containers and Methods

Empty cardboard boxes are be suitable for recycling. Disposal method dependent upon degree and nature of contaminated material. Handle and dispose of in compliance with current environmental waste legislation. If in doubt contact Local Statuary Authorities.

Effects of Sewage Disposal

Do NOT dispose of into sewage systems. Product may stimulate algal and bacterial growth.

Special Precautions for Incineration or Landfill

Incineration may produce toxic gases (CO_x, SO_x). Handle and dispose of in compliance with current environmental waste legislation. If in doubt contact local council and/or state environment authority. Offer surplus and non-recyclable material to a licensed disposal company.

14. TRANSPORT INFORMATION

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|---|--|--|
| UN number | Not required under ADG Code | |
| Proper shipping or technical name | NOT CONSIDERED DANGEROUS GOODS | |
| Transport hazard class | Not required under ADG Code | Subsidiary risk Not required under ADG Code |
| Packing Group | Not required under ADG Code. | |
| Environmental hazards for transport purposes | Not a known marine pollutant according to IMDG Code. Not an Annexe I chemical according to MARPOL. | |
| Special precautions for user | No known special precautions for transportation. Containers must be clearly labelled, rigid and strong. Store in dry well ventilated place out of direct sunlight. Keep away from strong oxidising agents. | |
| Additional Information | No additional information required by overseas regulatory agencies or regulations for the transport of goods by other modes. | |
| HAZCHEM | Not required according to ADG Code. | |
| IMDG | Not required according to IMDG Code. | |



15. REGULATORY INFORMATION

Hazard Category The product is classified as a **Non-Hazardous Substance** in accordance with Safe Work Australia in accordance with Hazardous Substances Information System (HSIS) Australia and Global Harmonised System (GHS)

Montreal Protocol

Not an ozone depleting substance.

The Stockholm Convention

Not a persistent organic pollutant.

The Rotterdam Convention

Not a banned pesticide or industrial chemical.

Basal Convention

Not a hazardous waste.

International Convention for the Prevention of Pollution from Ships (MARPOL)

Not subject to Annexe III

**Safety, health and
environmental
regulations**

SUSMP Classification Not Classified as a Schedule Poison.
NICNAS No data available

16. OTHER INFORMATION

This Safety Data Sheet conforms with the "PREPARATION OF SAFETY DATA SHEETS FOR HAZARDOUS CHEMICALS Code of Practice, DECEMBER 2011" by Safe Work Australia. To meet the GHS requirements under the WHS regulations in relation to the preparation of safety data sheets for hazardous chemicals.

SDS prepared June, 2017 version number 1.

Legend of Abbreviations and Acronyms

HSIS - Hazardous Substances Information System
GHS - Globally Harmonised System
ADG - Australian Dangerous Goods Code for the Transport of Dangerous Goods by Road or Rail
IERG - Initial Emergency Response Guide
SDS - Safety Data Sheet
CAS Number - Chemical Abstract Service Number
< - Less than
> - Greater than
w/w - Weight per weight
AS/NZS - Australian Standards and New Zealand Standards
OEL - Occupational Exposure Limit
STEL - Short Term Exposure Limit
@ - at
pH - Potential of hydrogen
°C - Degrees celcius
STOT - Specific Target Organ Toxicity
BCF - Bioconcentration Factor
MARPOL - International Convention for the Prevention of Pollution from Ships
IMDG - International Maritime Dangerous Goods
UN Number - United Nations Number
SUSMP - Standards for the Uniform Scheduling of Medicines and Poisons
LD₅₀ - Median lethal dose, is the median dosage per unit bodyweight required to kill half the members of a tested population after a specified test duration
LD₀₁ - Lethal dose low, is the lowest dosage per unit of bodyweight known to have resulted in a fatality in a particular animal species
LC₅₀ - Median lethal concentration, is the median dosage per unit body weight required to kill half the members of a tested population after a specified test duration
EC₅₀ - Half maximal effective concentration
mg/kg - Milligrams per kilogram
mg/L - Milligrams per litre
mg/m³ - Milligrams per cubic metre
IARC - International Agency for Research on Cancer
OECD - Organisation for Economic Co-operation and development (guidelines for testing of chemicals)
% - Percent or percentage

Emergency Contact

Lawrie Co Technical Manager:
0408 268 058

Poisons Information Centre:
(Australia) 13 11 26

Disclaimer

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Related Product Codes

None

Safety Data Sheet Revision

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End of Safety Data Sheet