

SAFETY DATA SHEET

According to Federal Register / Vol 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1 - SUBSTANCE IDENTITY AND COMPANY INFORMATION

1.1 PRODUCT NAME: PHYLLOKARE™ ORGANIC LIQUID SEAWEED CONCENTRATE
PRODUCT FORM: Mixture

1.3 RECOMMENDED USE AND RESTRICTIONS ON USE:

Use of the substance/mixture: Biostimulant
Fertilizer

1.3 SUPPLIER: Koppert Biological Systems, Inc.
1502 Old US 23
Howell, MI 48843
Tel: +1 (810) 632-8750
Fax: +1 (810) 632-8771
E-mail: info@koppert.com

1.4 EMERGENCY CONTACT: Poison Control Center 1-800-222-1222

SECTION 2 - HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

GHS US classification: Not classified.

2.2 GHS Label elements, including precautionary statements

GHS US labeling: Not classified.

2.3 Other hazards which do not result in classification:

No additional information available

2.4 Unknown acute toxicity (GHS US)

Not applicable

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

Name	Product Identifier	%	GHS US classification
Ascophyllum nodosum, extract	CAS-No.: 84775-78-0	Confidential	Not classified

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures

First-aid measures after inhalation:	Remove person to fresh air and keep comfortable for breathing
First-aid measures after skin contact:	Wash skin with plenty of water
First-aid measures after eye contact:	Rinse eyes with water as a precaution
First-aid measures after ingestion:	Call a poison center/doctor/physician if you feel unwell.

4.2 Most important symptoms and effects (acute and delayed):

No additional information available

4.3 Immediate medical attention and special treatment, if necessary:

Treat symptomatically

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray. Dry powder. Foam. Carbon dioxide.

5.2 Specific hazards arising from the chemical

Hazardous decomposition products in case of fire: Toxic fumes may be released

5.3 Special protective equipment and precautions for fire-fighters

Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel

Emergency procedures: Ventilate spillage area

6.1.1 For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2 Environmental precautions

Avoid release to the environment

6.3 Methods and material for containment:

Methods for cleaning up: Take up liquid spill into absorbent material.
Other information: Dispose of material or solid residues at an authorized site

6.3 Reference to other sections

For further information refer to section 13

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling:

Precautions for safe handling

Ensure good ventilation of the work station. Wear personal protective equipment

Hygiene measures

Do not eat, drink, or smoke when using the product. Always wash hands after the product.

7.2 Conditions for safe storage, including any incompatibilities:

Storage conditions

Store in a well-ventilated place. Keep cool.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

No additional information available

8.2 Appropriate engineering controls:

Appropriate engineering controls

Ensure good ventilation of the work station

Environmental exposure controls

Avoid release to the environment

8.3 Personal Protective Equipment

Hand Protection

Protective gloves

Eye Protection

Safety glasses

Skin and body protection

Wear suitable protective clothing

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:

Liquid

Appearance:

Black

Odor:

Marine

pH:

4.5 – 5.5

Melting:

Not applicable

Freezing point:

32°F / 0°C

Boiling Point:

>212°F / >100°C

Flash Point:

No data available

Relative evaporation rate (butyl acetate=1):

No data available

Flammability (solid, gas):

Not applicable

Vapor pressure:

No information available

Relative vapor density at 20°C

No data available

Relative density:

No data available

Density:

≥ 1.17 g/cm³

Solubility:

Soluble in water

Partition coefficient n-octanol/water (Log Pow):

No data available

Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, kinematic:	Not available
Viscosity, dynamic:	< 100 cP
Explosion limits:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

9.2 Other information No additional information available

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity:

The product is non-reactive under normal conditions of use, storage and transport.

10.2 Chemical stability:

Stable under normal conditions

10.3 Possibility of hazardous reactions:

No dangerous reactions known under normal conditions.

10.4 Conditions to avoid:

None under recommended storage and handling conditions (see Section 7).

10.5 Incompatible materials:

No additional information available

10.6 Hazardous decomposition products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity (oral):	Not classified
Acute toxicity (dermal):	Not classified
Acute toxicity (inhalation):	Not classified

Ascophyllum nodosum, extract (84775-78-0)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation – Rat	> 2.88 mg/l

Skin corrosion/irritation:	Not classified pH: 4.5 – 5.5
Serious eye damage/irritation:	Not classified pH: 4.5 – 5.5

Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT-single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified
Viscosity, kinematic:	Not available

SECTION 12 - ECOLOGICAL INFORMATION

12.1. Toxicity:

Ecology: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Ascophyllum nodosum, extract (84775-78-0)	
LD50 -Fish[1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96h, <i>Danio rerio</i> , Static system, Fresh water, Experimental value, GLP)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth inhibition Test, 72 h, <i>Pseudokirchneriella subcapitata</i> , Static system, Fresh water, Experimental value, GLP)

12.2. Persistence and degradability

Ascophyllum nodosum, extract (84775-78-0) Not readily biodegradable in water

12.3. Bioaccumulative potential

PHYLLOKARE Organic Liquid Seaweed Concentrate	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow <4)

Ascophyllum nodosum, extract (84775-78-0)	
Partition coefficient n-octanol/water (Log Pow)	≤ 3.3 (weight of evidence approach, EU method A.8 Partition Coefficient, 22°C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow <4)

12.4. Mobility in soil

PHYLLOKARE Organic Liquid Seaweed Concentrate	
Ecology - soil	No (test) data on mobility of the substance available

Ascophyllum nodosum, extract (84775-78-0)	
Surface tension	51.1 mN/M (20°C, 1 g/l, OECD 115: Surface tension of Aqueous Solutions)
Ecology - soil	No (test) data on mobility of the substance available

12.5. Other adverse effects

No additional information available

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Disposal methods

Waste treatment methods

Dispose of contents/container in accordance with licensed collector's sorting instructions

SECTION 14 - TRANSPORT INFORMATION

In accordance with DOT / TDG / IMDG / IATA

14.1 UN Number

Not regulated for transport

14.2 UN Proper shipping name

Proper Shipping Name (DOT)

Not applicable

Proper Shipping Name (TDG)

Not applicable

Proper Shipping Name (IMDG)

Not applicable

Proper Shipping Name (IATA)

Not applicable

14.3 Transport hazard class(es)

DOT

Transport hazard class(es) (DOT)

Not applicable

TDG

Transport hazard class(es) (TDG)

Not applicable

IMDG

Transport hazard class(es) (IMDG)

Not applicable

IATA

Transport hazard class(es) (IATA)

Not applicable

14.4 Packing group

Packing group (DOT)

Not applicable

Packing group (TDG)

Not applicable

Packing group (IMDG)

Not applicable

Packing group (IATA)

Not applicable

14.5 Environmental hazards

Other information

No supplementary information available

14.6 Special precautions for user

DOT

No data available

TDG

No data available

IMDG

No data available

IATA

No data available

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

Not applicable

SECTION 15 - REGULATORY INFORMATION

15.1 U.S. Federal Regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2 International regulations

CANADA

Ascophyllum nodosum, extract (84775-78-0)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3 US State regulations

California Proposition 65 – This product does not contain any substances known to the State of California to cause cancer, developmental and/or reproductive harm

SECTION 16 - OTHER INFORMATION

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Not classified