

1. PRODUCT IDENTIFIER & IDENTITY FOR THE CHEMICAL



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13 11 26 (Australia)
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CAS Number:	Mixture	Product Code:	BIOLML1
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Other Names: None.
Product Use: Recommended for use as an inoculum for fermentation as a fertiliser additive only. A blend of non-pathogenic soil bacteria and fungi diluted in an inert carrier.

2. HAZARD IDENTIFICATION

Classified as a Non-Hazardous Substance

in accordance with Safe Work Australia - Hazardous Chemicals Information System (HCIS) Australia, Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.

Not Classified as a Scheduled Poison

in accordance with the Standard for the Uniform Scheduling of Medicines and Poison (SUSMP) Australia.

Not Classified as Dangerous Goods

in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG).

GHS	Non-Hazardous
SUSMP	Not a Scheduled Poison
ADG	Not Dangerous Goods

GHS Classification

Hazard Categories	Not applicable
Signal Word	Not applicable
Hazard Statements	Not applicable

Precautionary Statements – General, Prevention, Storage and Disposal

General	If medical advice is needed, have the product container or label on hand. Keep out of reach of children. Read label before use.
Prevention	Wash hands and exposed skin thoroughly after handling.
Storage	Store in a cool location.
Disposal	Dispose of container to an approved waste disposal plant.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Product name	BioMAX MicroLife	SDS Code	8042
Product use	Recommended for use as an inoculum in fermentation as a fertiliser additive only		
Ingredients	Name	CAS Registry Number®	Proportion w/w
	Microbial Inoculum – <i>Azospirillum brasilense</i> , <i>Bacillus subtilis</i> , <i>Bacillus megaterium</i> , <i>Cellulomonas cellosea</i> , <i>Pseudomonas fluorescens</i> , <i>Pseudomonas cellulose</i> , <i>Streptomyces cellulose</i> , <i>Trichoderma harzianum</i> , <i>Yarrowia lipolytica</i> . (Non-pathogenic organisms).	-	15.0 – 20.0%
	Inert carrier (excipient)	-	50.0 – 60.0%
	Wheat germ	0130498-22-5	25.0 – 30.0%
	Humic acid, potassium salt	68514-28-3	<2.0%

4. FIRST AID MEASURES

- Inhalation** If applicator breathes in dust, remove oneself to fresh air and keep warm and quiet if experiencing breathing difficulties.
- Ingestion** If swallowed rinse mouth with water, give plenty of water to drink. Contact a doctor if any symptoms arise.
- Eyes** If in eyes, immediately hold eyelids apart and rinse for several minutes with running water. Remove contact lenses if present and easy to do so. If any irritation occurs get medical attention.
- Skin and hair** If skin or hair contact occurs, wash skin and hair with plenty of soap and running water. If skin irritation occurs get medical attention.
- First aid facilities** Eye wash, clean water supply, soap, or skin cleaner.
- Advice to doctor** Have a copy of this safety data sheet or label available. Treat symptomatically.



Symptoms caused by exposure

Ingestion may cause vomiting. Contact may cause irritation to the eyes. Open wounds may be susceptible to infection – low risk.

Medical attention and special treatment

Wash exposed skin and hair with water and soap. If swallowed rinse mouth, give plenty of water to drink. If in eyes flush continuously with running water for at least 15 minutes. Treat symptomatically.

5. FIRE FIGHTING MEASURES

General measures

Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas.

Flammability conditions

Product is non-combustible. 8kg product is packaged in polypropylene.

Suitable extinguishing equipment AS 2444:2001

Appropriate extinguishing media includes water, water spray, foam, dry chemical or carbon dioxide. Use extinguishing media suitable for the surrounding fire and environment.

Specific hazards arising from the chemical fire

Low levels of carbon dioxide (CO₂) and carbon monoxide (CO). Combustion and decomposition products will mostly be those associated with combustion of polypropylene packaging.

Special protective equipment and precautions for fire fighters

Wear self-contained breathing apparatus for firefighting if necessary (includes firefighting helmet, coat, trousers, boots, and gloves).

No HAZCHEM Code assigned.



Further information

Flash Point	No data available
Lower Explosion Limit	No data available
Upper Explosion Limit	No data available
Auto Ignition Temperature	No data available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Use personal protective equipment. Avoid breathing dust. Ensure adequate ventilation. For personal protection see section 8.



Environmental precautions

No environmental precautions are required. Product is completely non-toxic to the environment.

Methods and materials for containment and cleaning up

Spills can be collected with a dustpan and brush or broom. For safe disposal product can be added to water and applied to soil or plants.

7. HANDLING and STORAGE

Precautions for safe handling

This product contains microorganisms. Avoid contact with skin and eyes. Avoid creating and breathing dust. Wear appropriate particle respirator (dust mask) when handling. Wash hands and exposed skin immediately after use. Handle in accordance with good industrial hygiene and safety practices.



Conditions of safe storage and incompatibilities

Keep out of reach of children. Containers must be clearly labelled. Store tightly closed in a well-ventilated cool place out of direct sunlight.

Specific end uses

Apart from uses mentioned in section 1, no other specific uses are stipulated.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure standards TWA (8 hour)	There are no assigned exposure standards for this product. TWA = No data available for this mixture, however the HCIS specifies 10mg/m3 (for inspirable dust) and 3mg/m3 (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 HCIS specifies 10mg/m3 (for inspirable dust) and 3mg/m3 (for respirable dust).

Biological limited values

There are no known biological limited values that have been assigned.

Engineering controls

Avoid creating dusts where personnel are exposed without appropriate PPE. Ensure adequate general or local exhaust ventilation. Handle in accordance with good industrial hygiene and safety practices. Wash hands and exposed skin before breaks and at the end of the workday.

Personal Protection

**Inhalation/respiratory
AS –NZS 1715/1716**

Not required under normal operating conditions. If exposed to dust use a class P2 particle respirator. Use respirators and components tested and approved under appropriate government standards.



**Eye and face
AS –NZS 1336/1337**

Safety glasses fitted with side shields are recommended to prevent eye irritation.

**Gloves
AS –NZS 2161**

Gloves are not required, but exposed skin should be washed after use.

**Footwear
AS –NZS 2210**

Specific footwear is not a requirement but should be chosen to suit the environment you are working in.

Clothing
AS –NZS 3765 No specific clothing required. However, it is recommended to wash any exposed skin or hair after use.

Hearing
AS –NZS 1270 Hearing protection not required.

Thermal hazards

No data available

Other Requirements

The type of protective equipment must be selected according to the concentration and amount of the substance at the specific workplace. Avoid unnecessary contact with eyes, skin, and hair. After application, wash skin and hair thoroughly with soap and water. Handle in accordance with good industrial hygiene and safety practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid
Appearance	Light grey powder
Odour	Yeasty organic odour
Odour threshold	No data available
pH @ 20°C (50g/L water)	7.2 – 7.5
Melting point	No data available
Flash point	No data available
Flammability (solid)	No data available
Upper/lower flammability or explosive limits	No data available
Auto-ignition temperature	No data available
Bulk Density	0.76 – 0.78 kg/m ³
Solubility	50% soluble, 40% colloidal, 10% insoluble
Decomposition temperature	>100°C
Biodurability or biopersistance	Naturally occurring soil bacteria and fungi. Inert carrier/wheat germ – no data available
Degree of aggregation or agglomeration and dispersability	No data available. Dispersible in water.
Dustiness	Slightly dusty
Particle size (average and range)	Average ~ no data available. Range ~ 5µm – 2mm.
Redox potential	No data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions. No data available.

Possibility of hazardous reactions

Will not polymerise.

Conditions to avoid

Avoid excessive heat and direct sunlight.

Incompatible materials

No data available.

Hazardous decomposition products

Combustion and decomposition products may include low levels of carbon dioxide (CO₂) and carbon monoxide (CO). Combustion of packaging will result in products associated with combustion of polypropylene.

11. TOXICOLOGICAL INFORMATION

To the best of our knowledge, the chemical, physical and toxicological properties of this mixture have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available.

Persistence and degradability

No data available

Bioaccumulative potential

No data available.

Mobility in soil

No data available

Other adverse effects

BioMAX MicroLife is a microbiological inoculum of bacteria and fungi that are extracted from the soil rhizosphere. Therefore, will not have any ecological impact on the natural environment. The carrying agent for the inoculum is a wheat product and inert inorganic material and not expected to have any adverse effects.

13. DISPOSAL CONSIDERATIONS

Spills

Collect all residues with a dustpan and broom. After removal of residues wash down area with water.

Material

Residue can be added to water and applied to soil or plants or placed in green waste. Disposal of packaging must be carried out in accordance with Local Statuary Authorities.

Contaminated Material and Packaging

Empty 8kg pails may be suitable for reuse or recycling after cleaning and appropriate disposal of the cleaning agents. Disposal must be carried out in compliance with current environmental waste legislation. If in doubt seek professional advice or contact Local Statuary Authorities.

For the safety of persons conducting disposal, recycling or reclamation activities, refer to the information in section 8.

14. TRANSPORT INFORMATION

UN number

Not required under ADG Code.

Proper Shipping 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 special precautions required when transporting this material.

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 - Hazardous Chemicals Information System (HCIS) Australia, Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.
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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.

MARPOL

Not Subject to Annexe I - Prevention of pollution by oil and oily water.
Subject to Annexe III - Harmful Substances carried in Packaged Form.

Safety, health, and environmental regulations

SUSMP Classification (Aust) - Not a scheduled poison.

NICNAS - No data available.

Storage

This product should be stored out of direct sunlight in a cool dry environment.

16. OTHER INFORMATION

This Safety Data Sheet conforms with the "PREPARATION OF SAFETY DATA SHEETS FOR HAZARDOUS CHEMICALS Code of Practice, MAY 2018" by Safe Work Australia. To meet the GHS (Eighth revised edition, 2019) requirements under the WHS regulations in relation to the preparation of safety data sheets for hazardous chemicals.

SDS prepared by LawrieCo Technical Manager 7th July 2020 version number 2.

Legend of Abbreviations and Acronyms

ADG - Australian Dangerous Goods Code for the Transport of Dangerous Goods by Road or Rail.

AS/NZS - Australian Standards and New Zealand Standards.

BCF - Bioconcentration Factor.

CAS Registry Number® - Chemical Abstract Service Registry Number.

CAS RN® - Chemical Abstract Service Registry Number.

GHS - Globally Harmonised System.

HCIS - Hazardous Chemicals Information System.

HSDB - Hazardous Substances Data Bank.

ECHA-CLP - European Chemicals Agency - Classification Labelling Packaging.

NICNAS-IMAP - National Industrial Chemicals Notification and Assessment Scheme - Inventory Multi-tiered Assessment and Prioritisation.

IARC - International Agency for Research on Cancer.

IERG - Initial Emergency Response Guide.

IMDG - International Maritime Dangerous Goods.

MARPOL - International Convention for the Prevention of Pollution from Ships.

OECD - Organisation for Economic Co-operation and development (guidelines for testing of chemicals).

SIDS - Screening Information Data Sets.

TWA - Time-Weighted Average.

SDS - Safety Data Sheet.

STEL - Short Term Exposure Limit.

STOT - Specific Target Organ Toxicity.

SCL - Specific Concentration Limits.

SUSMP - Standards for the Uniform Scheduling of Medicines and Poisons.

S6 - Schedule 6 Poison.

UN Number - United Nations Number.

°C - Degrees Celsius.

EC₅₀ - Half maximal effective concentration.

LD₅₀ - Median lethal dose; is the median dosage per unit bodyweight required to kill half the members of a tested population after specified test duration.

LD₁₀₀ - The lowest dose of a substance that under defined conditions is lethal for 100% exposed animals.

LD_{L0} - 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.

mg/kg - Milligrams per kilogram.

mg/L - Milligrams per litre.

g/mL - Grams per millilitre.

mg/m³ - Milligrams per cubic metre.

pH - Potential of hydrogen (numeric scale to specify the acidity or basicity of an aqueous solution).

w/w - Weight per weight.

% - Percent or percentage.

< - Less than.

> - Greater than.

@ - at.

mPa·s - Millipascal-second.

Emergency Contact
24 hours

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Disclaimer

The data provided is to best of LAWRIECO's knowledge and is believed to be accurate and reliable as of the date of issue. However no expressed or implied warranties are given. LAWRIECO cannot anticipate or control the conditions under which this information may be used. Therefore, it is the user's responsibility to satisfy themselves as to the suitability and completeness of such information for their particular use. It is the responsibility of the user to ensure that the issue is current. This information given is a non-controlled document.

Related Product Codes

BIOLML8

Safety Data Sheet Revision

Issue Date: 7th July 2020
Version Number: 2
Revision Number: 1
Reason for Revision: SDS out of date
Previous Versions: Version 1, original (September 2007)
Next Revision Due: July 2025

End of Safety Data Sheet