

1. PRODUCT IDENTIFIER and CHEMICAL IDENTITY

Product Name: BioMAX 100% Soluble Fulvic
Other Names: Fulvic Acid

LawrieCo Pty Ltd

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Emergency Contact
24 hours

LawrieCo Technical Manager:
0408 268 058

Poisons Information Centre:
(Australia) 13 11 26

CAS Number	479-66-3	Product Code	BIOSF25
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Product description, recommended use and restrictions on use: Soluble powder for use as a fertiliser, plant growth stimulant, soil conditioner and to increase the efficiency of liquid fertilisers in fertigation or foliar application. Recommended for use as a fertiliser only.

2. HAZARD IDENTIFICATION

Classified as a NON-Hazardous Substance in accordance with Safe Work Australia - Hazardous Substances Information System (HSIS) Australia, Global Harmonised System (GHS) documents and 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

P102 + P103 Keep out of reach of children. 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 100% Soluble Fulvic Powder	SDS Code	8039
Ingredients	Name	CAS Number	Proportion w/w
	Fulvic Acid	479-66-3	>80.0%
	Water	7732-18-5	<5.0%
	Non-Hazardous Organic/Inorganic Material	Mixture	<15.0%

4. FIRST AID MEASURES

Description of necessary first aid measures

Inhalation	If applicator feels difficulty breathing, drowsy, dizzy or experiencing headaches, remove victim from exposure to fresh air. If not breathing apply artificial respiration. If breathing is difficult, give oxygen. Seek medical advice if effects persist.
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	Rinse thoroughly with plenty of water for at least 15 minutes. Consult a doctor if any irritation occurs.
Skin	If skin contact occurs, remove all contaminated clothing, wash skin and hair with soap and plenty of water. 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, skin, abrasions, sores and eyes.

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. Inhalation may aggravate asthma.

5. FIRE FIGHTING MEASURES

Suitable extinguishing equipment	Appropriate extinguishing media includes water, water spray, foam and dry chemical or carbon dioxide. Use extinguishing media suitable agent for the surrounding fire.
Specific hazards arising from the chemical fire	May form combustible dust concentrations in air. Combustion may produce irritants and toxic gases.
Special protective equipment and precautions for fire fighters	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).
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. May form combustible dust concentrations in air. 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

Cover drains. Contain and sweep/shovel up spills with dust binding material. Avoid creating dust. Keep labelled in suitable, closed containers for disposal.

7. HANDLING and STORAGE

Precautions for Safe Handling

Avoid contact with skin and eyes. Ensure eyewash and clean water are available and ready for use. For personal protection see section 8. After use and before eating, drinking or smoking, wash all exposed skin and hair with soap and water. Keep out of reach of children.

Conditions of Safe Storage and Incompatibilities Specific end uses

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. 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

Exposure standards TWA (8 hour)

There are no assigned exposure standards for this product.
Fulvic Acid (479-66-3) >80.0% by weight - TWA = No data available, however the HSIS 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.
Fulvic Acid (479-66-3) >80.0% by weight - STEL = No data available, however the HSIS 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

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

Not normally needed. For nuisance exposures use 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. 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

Hearing protection not required.

Other Requirements

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

Appearance (<i>physical state, colour, etc</i>)	Light brown powder
Odour	Slight earthy/coffee odour
Odour threshold	No data available
pH (@ 20°C)	5.0 - 6.0
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	0.9
Solubility	99.5% soluble in water
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
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>)	<150µm, no other 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

Reactivity	No data available
Chemical stability	Stable under normal conditions of use, storage and temperature.
Possibility of hazardous reactions	Hazardous polymerisation will not occur. Possible combustion in contact with strong oxidisers.
Conditions to avoid	Extreme heat. Keep in a sealed container.
Incompatible materials	Incompatible with oxidising agents, chlorates and nitrates.
Hazardous decomposition products	No hazardous decomposition products are known. In the event of fire: see section 5.

11. TOXICOLOGICAL INFORMATION

Ingredient: Fulvic Acid (479-66-3) >80.0% w/w

Information Sources: None available

Concentration	>80.0% by weight.
Acute oral toxicity	LD ₅₀ oral - No data available
Acute dermal toxicity	LD ₅₀ dermal - No data available
Acute inhalation toxicity	No data available
Specific Target Organ Toxicity	No data available
STOT - repeated exposure	
Specific Target Organ Toxicity	No data available
STOT - single exposure	
Skin corrosion/irritation	May cause mild irritation to skin.
Serious eye damage/irritation	May cause mild irritation to mucous membranes.
Respiratory or skin sensitisation	No data available
Germ cell mutagenicity	OECD Test Guideline 474 No Data available
Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive Toxicity	No data available
Aspiration hazard	No data available
Possible routes of exposure	Inhalation, dermal contact and ingestion.
Signs and Symptoms of exposure	No data available

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. Material is unlikely to be dangerous to aquatic organisms.
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available

Other adverse effects No data available

13. DISPOSAL CONSIDERATIONS

Spills

Prevent spills from entering drains, surface water and ground water. Collect all residues using dust binding material. Disposal must be carried out in accordance with Local Statuary Authorities. For personal protection see section 8.

Material

Handle and dispose of in compliance with current environmental waste legislation. If in doubt contact Local Statuary Authorities.

Contaminated Material

Empty containers may be suitable for reuse or recycling after cleaning and appropriate disposal of the cleaning agents. Disposal method dependent upon degree and nature of contaminated material. Disposal must be carried out in compliance with current environmental waste legislation. If in doubt seek professional advice or contact Local Statuary Authorities.

14. TRANSPORT INFORMATION

UN number	Not required under ADG Code	
Proper Shipping Name	Fulvic Acid	
Transport Hazard Class	NOT CONSIDERED DANGEROUS GOODS	
Packing Group	Not required under Subsidiary Risk	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 data available

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 Substances Information System (**HSIS**) Australia, Global Harmonised System (**GHS**) documents and in accordance with the Standard for the Uniform Scheduling of Medicines and Poison (**SUSMP**).

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 a harmful substance carried in packed form or noxious liquid substance.

Safety, health and environmental regulations **SUSMP Classification** Not Classified as a Schedule Poison.

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 March, 2016 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
AS/NZS	- Australian Standards and New Zealand Standards
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
IARC	- International Agency for Research on Cancer
OEL	- Occupational Exposure Limit
STEL	- Short Term Exposure Limit
STOT	- Specific Target Organ Toxicity
BCF	- Bioconcentration Factor
w/w	- Weight per weight
pH	- Potential of hydrogen
°C	- Degrees celcius
LD50	- Median lethal dose required to kill half the members of a tested population after a specified test duration
LDLo	- (Lethal dose low) The lowest dosage per unit of bodyweight of a substance known to have resulted in a fatality in a particular animal species.
mg/kg	- Milligrams per kilogram
g/kg	- Grams per kilogram
<	- Less than
>	- Greater than
%	- Percentage

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

BIOSF25

Safety Data Sheet Revision

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Next Revision Due: March, 2021

End of Safety Data Sheet