

1. PRODUCT IDENTIFIER and CHEMICAL IDENTITY

Product Name: BioMAX Liquid Fulvic

LawrieCo Pty Ltd

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Emergency Contact
24 hours

LawrieCo Technical Manager:
0408 268 058

Poisons Information Centre:
13 11 26 (Australia)

| CAS Number | Mixture | Product Code | BIOLLF |
|------------|---------|--------------|--------|
|------------|---------|--------------|--------|

Product description, recommended use and restrictions on use: An aqueous potassium fulvate solution for increased fertiliser efficiency, soil conditioning and plant growth stimulant. For application by fertigation or foliar spray. Recommended use as a fertiliser application 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. 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 Non-Hazardous
SUSMP Not Classified as a Scheduled Poison
ADG Not Classified as Dangerous Goods

Precautionary Statements General, prevention, response, storage and disposal
Keep out of reach of children. Read label before use.
Wash skin thoroughly after handling.
Wear protective gloves and eye protection.
Dispose of contents/ container to an approved waste disposal plant.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Product name BioMAX Liquid Fulvic **CAS Number** Mixture **Product Code** BIOLLF

| Ingredients <i>sp.gr.1.04 -1.07</i> | Name | CAS Number | Proportion w/w |
|---|---|-------------------|-----------------------|
| | Water | 7732-18-5 | 90.0% |
| | Fulvic Acid, Potassium Salt (fulvic acid) | 479-66-3 | 8.0% |
| | Proprietary Ingredients (Non-Hazardous) | Mixture | <5.0% |

4. FIRST AID MEASURES

Description of necessary first aid measures

| | |
|-----------------------------|---|
| Inhalation | Unlikely route of exposure, but if applicator feels drowsy, dizzy, tired or experiencing headaches, remove oneself to fresh air. If symptoms develop or persist seek medical attention. |
| Ingestion | Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth out with water and give plenty of water to drink. Consult a doctor if any symptoms occur. |
| Eyes | Rinse cautiously with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing until all contaminants are washed out completely. Consult a doctor if any irritation occurs. |
| Skin | If skin contact occurs, 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 Australia). Have a copy of this safety data sheet or label available. Treat symptomatically. |



Symptoms caused by exposure

May cause damage or irritation of the skin, mucous membranes and abrasions.

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.

5. FIRE FIGHTING MEASURES

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| 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 | Combustion may produce irritants. |
| 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. For personal protection see section 8.
No emergency procedures required.



Environmental precautions

Prevent product from entering waterways, sewage and drains. Collect all residues immediately. For any queries consult local statutory authorities.

Methods and materials for containment and cleaning up

Cover drains. Contain spills and absorb onto absorbent material, dry sand or earth. Sweep and shovel into suitably labelled, closed containers for disposal.

7. HANDLING and STORAGE

Precautions for Safe Handling

Avoid contact with skin and eyes. Ensure eyewash and clean water is 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

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. Ensure storage complies with local and national regulations.

Specific end uses

Apart from uses mentioned in section 1, 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.
TWA = No data available for this mixture.

Exposure standards STEL (15 min)

There are no assigned exposure standards for this product.
For dried product -
STEL = No data available for this mixture.

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. Avoid creating mists or sprays.

Personal Protection

Inhalation AS –NZS 1715/1716

Inhalation protection not required. Avoid creating mists or sprays.

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.



| | |
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| 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. Suitable cotton overalls buttoned up at neck and wrists recommended. |
| 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 skin. After application, wash exposed skin thoroughly with soap and water. |

9. PHYSICAL and CHEMICAL PROPERTIES

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|---|----------------------|
| Appearance (<i>physical state, colour, etc</i>) | Red/brown liquid |
| Odour | No appreciable odour |
| Odour threshold | No data available |
| pH (@ 20°C) | 3.85 – 4.15 |
| 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 (@ 20°C) | 1.04 – 1.07 |
| Solubility | 100% soluble |
| Partition coefficient: <i>n</i> -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>) | 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 known reaction to occur. |
| Chemical stability | Stable under normal conditions of use, storage and temperature. |
| Possibility of hazardous reactions | Hazardous polymerisation will not occur. |
| Conditions to avoid | Extreme heat. Keep in a sealed container. |
| Incompatible materials | No data available |
| Hazardous decomposition products | No data available. In the event of fire see section 5- Fire Fighting Measures. |

11. TOXICOLOGICAL INFORMATION

| Ingredient: Fulvic Acid, potassium salt (fulvic acid 479-66-3) | | Information Sources: - |
|--|---|-------------------------------|
| Concentration | 8% by weight. | |
| Acute toxicity | No data available | |
| Acute oral toxicity | No data available | |
| Acute dermal toxicity | No data available | |
| Acute inhalation toxicity | 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 | No data available | |
| Serious eye damage/irritation | No data available | |
| Respiratory or skin sensitisation | No data available. Not expected to be a skin sensitiser. | |
| Germ cell mutagenicity | No data available | |
| Carcinogenicity | Not identified as a probable, possible or confirmed human carcinogen by IARC. | |
| Reproductive Toxicity | No data available | |
| Aspiration hazard | No data available | |
| Possible routes of exposure | Inhalation of mists or sprays, dermal/eye contact and ingestion. | |
| Signs and Symptoms of exposure | No data available | |
| Other information | 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

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|--------------------------------------|---|
| 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 with absorbent 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

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|---|--|
| 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 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 **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 – not a harmful substance carried in packed form or a noxious liquid substance.

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 September, 2016 version number 1.

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 Number - | Chemical Abstract Service Number |
| GHS - | Globally Harmonised System |
| HSIS - | Hazardous Substances Information System |
| 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) |
| OEL - | Occupational Exposure Limit |
| SCBA - | Self-contained |
| SDS - | Safety Data Sheet |
| STEL - | Short Term Exposure Limit |
| STOT - | Specific Target Organ Toxicity |
| SUSMP - | Standards for the Uniform Scheduling of Medicines and Poisons |
| UN Number - | United Nations Number |
| °C - | Degrees Celsius |
| EC ₅₀ - | Half maximal effective concentration |
| LD ₅₀ - | Median lethal dose; is the median dosage per unit bodyweight required to kill half the members of a tested population after specified test duration |
| LD _{Lo} - | Lethal dose low, is the lowest dosage per unit of bodyweight known to have resulted in a fatality in a particular animal species |
| LC ₅₀ - | 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. |
| TLD _{Lo} - | Lowest published toxic dose. |
| mg/kg - | Milligrams per kilogram |
| mg/L - | Milligrams per litre |
| mg/m ³ - | 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 |

Emergency Contact
24 hours

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0408 268 058

Poisons Information Centre:
13 11 26 (Australia)

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

BIOLFAB/L
BIOLFF-1000
BIOLFF-200
BIOLFF-110
BIOLFF-20
BIOLFF-5

Safety Data Sheet Revision

Issue Date: September, 2016
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Preceding Versions: Not applicable
Next Revision Due: September, 2021
Reason for Revision: Not applicable

End of Safety Data Sheet