

1. PRODUCT IDENTIFIER & IDENTITY FOR THE CHEMICAL

Product Name: **BioMAX 100% Soluble Humic Fulvic**

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Emergency Contact
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Poisons Information Centre:
13 11 26 (Australia)

CAS Number	68514-28-3	Product Code	BIOLSH-25
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Other Names: Potassium humate; Humic acid, potassium salt.

Product Use: As a fertiliser additive for increased fertiliser efficiency, plant growth stimulation and soil conditioner.

2. HAZARD IDENTIFICATION

Classified as a 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 or Classified as Dangerous Goods

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

GHS	Hazardous
SUSMP	Not a Scheduled Poison
ADG	Not Dangerous Goods

GHS Classification

Hazard Categories


Skin Corrosion/Irritation - Category 3 or Not Applicable

Serious Eye Damage/Irritation - Category 2A

Specific Target Organ Toxicity (Single Exposure) - Category 3

Signal Word **Warning**

Hazard Statements

 Exclamation Mark	H316 Causes mild skin irritation	H319 Causes serious eye irritation	H335 May cause respiratory irritation
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Precautionary Statements - Prevention, Response, Storage and Disposal

Prevention

P261	Avoid breathing dust.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, eye protection and face protection.

Response	
P302 + P352	IF ON SKIN: Wash skin with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTRE (telephone 13 11 26) or doctor if you feel unwell.
P332 + P313	If skin irritation occurs: get medical advice.
P337 + P313	If eye irritation persists: get medical attention.
P362	Take off contaminated clothing and wash before use.
Storage	
P405	Store locked up.
Disposal	
P501	Dispose of contents and container to an approved waste disposal plant in accordance with local regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Product name	BioMAX 100% Soluble Humic Fulvic	SDS Code	8013
Product use	As a fertiliser additive only.		
Ingredients	Name	CAS Number	Proportion w/w
	Water (moisture)	7732-18-5	Max. – 10.0%
	Humic acid, potassium salt	68514-28-3	65.0 – <75.0%
	Fulvic acid	479-66-3	10.0 – <20.0%

4. FIRST AID MEASURES

Description of necessary first aid measures

Inhalation	If fumes or combustion products breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a doctor
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth out with water. Consult a doctor.
Eyes	Rinse thoroughly with plenty of water for at least 15 minutes and consult a doctor.
Skin and hair	If skin or hair contact occurs, remove all contaminated clothing, wash skin and hair with soap and plenty of water.
First aid facilities	Clean water supply, soap or skin cleaner.
Advice to doctor	If poisoning occurs, consult with the Poisons Information Centre (Telephone 13 11 26). Have a copy of this safety data sheet or label available. Treat symptomatically.



Symptoms caused by exposure

Irritation of the skin, mucous membranes and eyes. Difficulty breathing.

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 not breathing, apply artificial respiration.

5. FIRE FIGHTING MEASURES

Suitable extinguishing equipment	Use water spray, foam, fog, dry chemical or carbon dioxide.
Specific hazards arising from the chemical fire	Combustion products include; carbon monoxide (CO), carbon dioxide (CO ₂) and other pyrolysis products typical of burning organic material. Gases generated in combustion may be corrosive, poisonous or irritating.
Special protective equipment and precautions for fire fighters	Wear self-contained breathing apparatus (SCBA) and gas-tight suits for fire fighting when handling these substances. No HAZCHEM Code assigned.
Further information	Avoid contamination with strong oxidising agents.



6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Avoid dust formation. Avoid breathing dust, vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.
Environmental precautions	Prevent from entering waterways, sewage and drains. For any queries consult Local Statuary Authorities.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.



7. HANDLING and STORAGE

Precautions for safe handling	Keep out of reach of children. Use personal protective equipment. Avoid contact with skin and eyes. Avoid formation of dust. Provide appropriate ventilation at places where dust is formed. Normal measures for preventative fire protection. After use and before eating, drinking or smoking, wash all exposed skin and hair with soap and water.
Conditions of safe storage and incompatibilities	Containers must be clearly labelled. Store in a cool place. Keep container tightly closed in a dry well-ventilated place. Must be stored away from strong oxidising agents, reducing agents and any sources of ignition. Large scale dust production could result in an explosion hazard. Large scale or continuous use in a confined space requires adequate ventilation.
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 Hazardous Chemical Information System (HCIS) specifies 10mg/m ³ (for inhalable dust) and 3mg/m ³ (for respirable dust).
Exposure standards STEL (15 min)	There are no assigned exposure standards for this product.
Biological limited values	There are no known Biological Limited Values that have been assigned.

Engineering controls Avoid creating dust. Ensure adequate ventilation, especially in confined spaces. Handle in accordance with good industrial hygiene and safety practices. Wash hands before breaks and at the end of the work day.

Personal Protection

Inhalation

AS –NZS 1716

For nuisance exposures use a class P1 or P2 particle respirator. For higher level of protection use a class P3. Use respirators and components tested and approved under appropriate government standards.

Eye

AS –NZS 1337

Safety glasses fitted with side shields must be worn at all times during the handling and application period. Do NOT wear contact lenses.

Gloves

AS –NZS 2161

It is advisable to wear Viton or PVC elbow length gloves at all times during the handling and application period.

Footwear

AS –NZS 2210

It is advisable to wear enclosed footwear during the handling and application period.

Clothing

AS –NZS 2919

It is advisable to wear protective clothing during the handling and application period. Wear tight weave clothing appropriate for the work situation.

Hearing

AS –NZS 1270

Not required since the product is not applied by conventional air spray.

Other Requirements

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



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Dark brown - black crystalline powder/flakes
Odour	Slight earthy odour
Odour threshold	No data available
pH (10g/L @ 20°C)	10.0 - 11.0
Freezing point	Not applicable
Boiling point and boiling range	Not applicable
Melting point	No data available
Flash point	No data available
Evaporation rate	Not applicable
Flammability	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Bulk density or Specific Gravity	0.82
Solubility	>99.0% water soluble
Partition coefficient: n-octanol/water	No data available
Decomposition temperature	No data available
Viscosity	Not applicable
Specific heat value	No data available
Particle size	No data available
Volatile organic compounds content	No data available
% volatile	No data available

Saturated vapour concentration	No data available
Release of invisible flammable vapours and gases	No data available
Flammability limits	No data available

10. STABILITY AND REACTIVITY

Reactivity	Will react with strong oxidisers, not further data available.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Will not polymerise. Combustion possible in contact with strong oxidisers
Conditions to avoid	Extremely high temperatures.
Incompatible materials	Strong oxidising agents.
Hazardous decomposition products	Combustion products include; carbon monoxide (CO), carbon dioxide (CO ₂) and other pyrolysis products typical of burning organic material. Gases generated in combustion may be corrosive, poisonous or irritating. In the event of fire: see section 5.

11. TOXICOLOGICAL INFORMATION

Ingredient: Humic acid, sodium salt (68131-04-4)		Information Sources: Sigma-Aldrich
Concentration	>65% by weight.	
Acute toxicity	LD50 Intraperitoneal – rat – 502 mg/kg LD50 Intraperitoneal – mouse – 1,176 mg/kg	
Acute oral toxicity	LD50 Oral – rat – female - >2,000 mg/kg Directive 67/548/EEC, Annex V,B.1.	
Acute dermal toxicity	LD50 Dermal – rat – male and female - >2,000 mg/kg Directive 67/548/EEC, Annex V,B.3.	
Acute inhalation toxicity	No data available	
Specific Target Organ Toxicity STOT - repeated exposure	No data available	
Specific Target Organ Toxicity STOT - single exposure	May cause respiratory irritation.	
Skin corrosion/irritation	Causes mild skin irritation.	
Serious eye damage/irritation	Causes serious eye irritation.	
Respiratory or skin sensitisation	May cause respiratory irritation / Not a skin sensitiser.	
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.	
Humic acid, sodium salt has similar chemical and physical properties to the potassium salt.		
To the best of our knowledge, the chemical, physical and toxicological properties 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 No data available

13. DISPOSAL CONSIDERATIONS

Spills

Sweep up and shovel into suitable closed containers without creating dust. Wash down hard surface areas with water. Prevent spills from entering drains, surface water and ground water. Disposal must be carried out in accordance with Local Statuary Authorities.

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 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 Ensure containers are sealed and suitable for transport.

Additional information Transport to be conducted in accordance with chain of responsibility legislation, regulations and workplace procedures.

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

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

Subject to Annexe III - Harmful Substances carried in Packaged Form.

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 6th of November 2018 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 Number - Chemical Abstract Service Number
GHS - Globally Harmonised System
HCIS - Hazardous Chemicals 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)
TWA - Time-weighted
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
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
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
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

Emergency Contacts
24 hours

LawrieCo Technical Manager:
0408 268 058

Poisons Information Centre:
13 11 26 (Australia)

Disclaimer

The data provided is to best of LAWRIE CO's knowledge and is believed to be accurate and reliable as of the date of issue. However, no expressed or implied warranties are given. LAWRIE CO 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

Not applicable

Safety Data Sheet Revision

Issue Date: November 2018
Revision Number: 1
Version Number: 2
Preceding Versions: 1 (original) September 2013
Next Revision Due: November 2023
Reason for Revision: Expiry of version 1

End of Safety Data Sheet