

**LUMEN – Liquid Fertilizer Enzyme Additive**

Revision Date: 20/03/2025

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** Lumen liquid fertilizer enzyme additive

**Other means of identification:** Liquid fertiliser

**Uses of the substance:** Enhances the uptake of water and broad nutrient acquisition by plant roots with resultant improvements in soil and plant health, growth and yield

**Imported by:** Elemental Enzymes Australia Pty Ltd  
40-42 Scott Street,  
Dandenong  
Victoria 3175

**Telephone:** 1800 691 440

**Emergency telephone NO:** 1300 274 007

**SECTION 2: HAZARDS IDENTIFICATION**

**Signal word:** Warning



**Classification:** Skin sensitisation Category 1

**Hazard statements:** May cause an allergic skin reaction

**Precautionary statements:** Avoid breathing mist/spray  
Contaminated work clothing should not be allowed out of the workplace  
Wear protective gloves

**Hazards not otherwise** Proteins may have the potential to provoke sensitizing reactions

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	Hazard Classification	CAS-NO.	Concentration % by weight
Reaction mass of 5-chloro-2-methyl-1,2-thiazol-3(2H)-one and 2-methyl-1,2-thiazol-3(2H)-one	Skin Sens Cat 1	55965-84-9	>0.05%
Other ingredients			To 100%

Specific concentration limits:		
Name	Product Identifier	Specific concentration limits
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	CAS-No.: 55965-84-9 EC Index-No.: 613-167-00-5	(0.0015 ≤ C ≤ 100) Skin Sens. 1A, H317 (0.06 ≤ C < 0.6) Eye Irrit. 2, H319 (0.06 ≤ C < 0.6) Skin Irrit. 2, H315 (0.6 ≤ C ≤ 100) Eye Dam. 1, H318 (0.6 ≤ C ≤ 100) Skin Corr. 1C, H314

**SECTION 4: FIRST AID MEASURES**

**Inhalation:** Move to fresh air. If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.

**Eyes:** Rinse with water for several minutes. Remove contact lenses, if present and safe to do so. If eye irritation occurs seek medical advice/attention.

**Skin:** IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs get medical advice/attention.  
irritation occurs, obtain medical attention.

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**Ingestion:**

Treat symptomatically and supportively. Seek medical attention if you feel unwell. Rinse mouth. Do not induce vomiting.

**Advice to doctor:**

Treat symptomatically

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**SECTION 5: FIREFIGHTING MEASURES**

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<b>Suitable extinguishing media:</b>	Determined by surrounding material. In case of fire, use water fog, dry chemical, CO <sub>2</sub> , or "alcohol" foam. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment
<b>Hazchem code:</b>	Not applicable
<b>Explosion hazard:</b>	Not applicable
<b>Reactivity:</b>	No Information available
<b>Special protective equipment and Precautions for fire fighter's:</b>	In case of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and chemical-protective clothing. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately. Do not allow contaminated water to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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<b>Personal precautions:</b>	Slippery when spilt. Avoid accidents, clean up immediately. Large spills in a confined space may produce an ammonia-like odour. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Ventilate spillage area.
<b>Environmental precautions:</b>	Collect the spillage. Prevent further spillage and product from entering waterways.
<b>Methods and materials for containment and cleaning up:</b>	Contain - prevent run off into drains and waterways.  Procedure for spill: (1) Keep all bystanders away (2) Wear full length clothing and PVC gloves (3) Reposition any leaking containers to minimise leakage (4) Sweep spilt material into a pile (5) Shovel into drums (6) Disposal of material will depend upon the extent of the spill: • For quantities up to 50 kg of product bury in a secure landfill site. • For quantities greater than 50 kg seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established. (7) Decontaminate spill area with detergent and water and rinse with the smallest volume of water practicable.

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**SECTION 7: HANDLING AND STORAGE**

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<b>Precautions for safe handling:</b>	Handle container in a manner to prevent spillage. Avoid breathing vapours. Avoid skin and eye contact.
<b>Hygiene measures:</b>	Wash hands after use.
<b>Storage:</b>	Store in the original container, in a cool dry well-ventilated, locked place out of the reach of children. DO NOT store in direct sunlight. DO NOT store at temperatures below 0°C or exceeding 35°C. Keep containers closed when not in use - check regularly for leaks.
<b>Incompatible materials:</b>	Acids, bases, oxidizing agents, reducing agents and disinfectants may inactivate.

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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<b>Component exposure limits:</b>	No occupational exposure limit values under normal use conditions.
<b>Engineering controls:</b>	Ensure adequate ventilation and maintain good industrial hygiene and safety practices.
<b>Respiratory protection:</b>	None is needed under adequate ventilation conditions.
<b>Eye protection:</b>	No specific PPE required but for good hygiene practices avoid contact with eyes.
<b>Skin protection:</b>	Wear protective gloves. Avoid contact with skin and wash hands after use.
<b>Other information:</b>	Follow manufacturer's instructions for cleaning/maintaining PPE. Wear clothing appropriate to for all working conditions and all chemicals being handled. Do not eat, drink or smoke during use.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**


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<b>Appearance:</b>	Amber liquid
<b>Odour:</b>	Minimal; yeasty, earthy
<b>Odour threshold:</b>	No data available
<b>Physical state:</b>	Liquid
<b>pH as supplied:</b>	7.0 – 10.0
<b>Boiling point:</b>	No data available
<b>Melting point:</b>	No data available
<b>Freezing point:</b>	No data available
<b>Vapor pressure (mmHg):</b>	No data available
<b>Specific gravity (H<sub>2</sub>O = 1):</b>	1.0
<b>Evaporation rate:</b>	No data available
<b>Solubility in water:</b>	Dispersible in water
<b>Decomposition temperature:</b>	No data available
<b>Density:</b>	1.000 – 1.020 g/cm <sup>3</sup> (densimeter)
<b>Percent volatile:</b>	No data available
<b>Viscosity:</b>	No data available
<b>Flash point:</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Lower explosion limit:</b>	No data available
<b>Upper explosion limit:</b>	No data available
<b>Explosivity:</b>	No data available

**Other information:** Further safety related physical-chemical data are not known.

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**SECTION 10: STABILITY AND REACTIVITY**


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<b>Reactivity:</b>	None under normal conditions.
<b>Stability:</b>	Stable under normal conditions Susceptible to extreme conditions and prolonged or excessive heat.
<b>Conditions to avoid:</b>	Prolonged or excessive heat and open flame, direct sunlight, and freezing.
<b>Incompatibility (material/conditions to avoid):</b>	Strong oxidizing agents, strong reducing agents, acids, bases, direct sunlight, nitrates.
<b>Possibility of hazardous reactions:</b>	No hazardous polymerization will occur.
<b>Hazardous decomposition or by-products:</b>	None under normal conditions.

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**SECTION 11: TOXOLOGICAL INFORMATION**


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No toxicity data is available for this specific product. Classification of Lumen has been completed by calculating the properties of the formulation based on the properties and concentrations of its hazardous ingredients.

<b>Acute toxicity (oral)</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>Acute toxicity (dermal)</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>Acute toxicity (inhalation)</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>Skin corrosion/irritation:</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>Eye irritation:</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>Respiratory or skin sensitisation:</b>	: Classified as a skin sensitizer Category 1
<b>Germ cell mutagenicity:</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>Carcinogenicity:</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>Reproductive:</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>Specific target organ toxicity:</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>Aspiration hazard:</b>	: Not classified (Based on available data, the classification criteria are not met)
<b>Other information:</b>	

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**SECTION 12: ECOLOGICAL INFORMATION**


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<b>Ecological information:</b>	Do not empty into drains.
<b>Persistence and degradability:</b>	Persistence is unlikely based on available information.
<b>Bioaccumulative potential:</b>	No additional information available.
<b>Mobility in soil:</b>	Likely to be mobile in the environment due to water solubility.
<b>Other adverse effects:</b>	No additional information available.

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**SECTION 13: DISPOSAL CONSIDERATIONS**


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<b>Container disposal:</b>	Triple rinse containers before disposal. Add rinsings to spray tank. DO NOT reuse this container for any other purpose. If recycling, replace cap and return clean container to recycler or designated collection point. If not recycling, break, crush or puncture and deliver to an approved waste management facility. If an approved waste management facility is not available bury the empty packaging 500mm below the surface in a disposal pit specifically marked and set up for this purpose. Do not burn empty containers or product.
<b>Product disposal:</b>	Do not dispose of undiluted chemicals on site. Dispose of this product only by using according to the label, or at an approved landfill. DO NOT contaminate water supply with chemical or empty container.

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**SECTION 14: TRANSPORT INFORMATION**


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<b>Road and Rail Transport:</b>	Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.
<b>Marine Transport:</b>	Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.
<b>Air Transport:</b>	Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

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**SECTION 15: REGULATORY INFORMATION**


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<b>AICIS Inventory:</b>	All the constituents of this material are either listed on the Australian Inventory of Industrial Chemicals (Inventory), not required due to the nature of the chemical, or have been reported under the Industrial Chemicals Act 2019 as amended.
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**SECTION 16: OTHER INFORMATION**


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<b>General Information:</b>	None
<b>Issue Number:</b>	002
<b>Issue Date:</b>	24 January 2023
<b>Key abbreviations or acronyms used:</b>	ADG Code - Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition) IMDG Code – International Maritime Dangerous Goods Code IATA - International Air Transport Association AICIS - Australian Inventory of Industrial Chemicals. Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (July 2020) CAS – Chemical Abstracts Service. GHS – Globally Harmonized System.

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