



# MATERIAL SAFETY DATA SHEET

**Product Name**                    **AGB ZINC & MANGANESE CHELATE**

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Supplier Name**            **AGMIN CHELATES PTY LTD**  
**Address**                    32 Wattlepark Avenue, Moolap, Victoria, AUSTRALIA, 3221  
**Telephone**                (03) 5248 3828  
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**Website**                   http://www.agmin.com.au/  
**Synonym(s)**               Zinc Lignosulphonate; Manganese Lignosulphonate  
**Use(s)**                     FOLIAR SPRAY • LIQUID FERTILISER  
**MSDS Date**               08 Feb 2011

## 2. HAZARDS IDENTIFICATION

**NOT CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA**

**NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

<b>UN No.</b>	None Allocated	<b>DG Class</b>	None Allocated	<b>Subsidiary Risk(s)</b>	None Allocated
<b>Packing Group</b>	None Allocated	<b>Hazchem Code</b>	None Allocated	<b>EPG</b>	None Allocated

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
ZINC LIGNOSULPHONATE	NOT AVAILABLE	57866-49-6	<40%
MANGANESE LIGNOSULPHONATE	NOT AVAILABLE	68186-83-4	<15%
UREA	(NH) <sub>2</sub> CO	57-13-6	<10%
WATER	H <sub>2</sub> O	7732-18-5	<50%

## 4. FIRST AID MEASURES

**Eye**                            If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poison Information Centre or a doctor, or for at least 15 minutes.

**Inhalation**                   If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

**Skin**                            If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre or a doctor.

**Ingestion**                    For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

**Advice to Doctor**          Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

<b>Fire and Explosion</b>	Non flammable. No fire or explosion hazard exists.
<b>Extinguishing</b>	Non flammable.
<b>Flammability</b>	Non flammable. May evolve toxic gases if strongly heated
<b>Hazchem Code</b>	None Allocated.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Spillage</b>	If spilt (bulk), wear splash-proof goggles, PVC/rubber gloves, coveralls and rubber boots. Absorb spill with sand or similar, collect and place in sealable containers for disposal. Prevent spill entering drains or waterways. Caution: Slippery when spilt.
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## 7. STORAGE AND HANDLING

<b>Storage</b>	Store in a cool, dry, well ventilated area, removed from oxidising agents, acids, and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use.
<b>Handling</b>	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Exposure Stds</b>	No exposure standard(s) allocated.
<b>Biological Limits</b>	No biological limit allocated.
<b>Engineering Controls</b>	Ensure adequate natural ventilation.
<b>PPE</b>	Wear splash-proof goggles and PVC or rubber gloves. When using large quantities or where heavy contamination is likely, wear: coveralls.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	DARK BROWN COLOURED LIQUID	<b>Solubility (Water)</b>	SOLUBLE
<b>Odour</b>	SLIGHT WOODY ODOUR	<b>Specific Gravity</b>	1.23
<b>pH</b>	4-5	<b>% Volatiles</b>	> 60 % (Water)
<b>Vapour Pressure</b>	18 mm Hg @ 20°C	<b>Flammability</b>	NON FLAMMABLE
<b>Vapour Density</b>	NOT AVAILABLE	<b>Flash Point</b>	NOT RELEVANT
<b>Boiling Point</b>	100°C (Approximately)	<b>Upper Explosion Limit</b>	NOT RELEVANT
<b>Melting Point</b>	NOT AVAILABLE	<b>Lower Explosion Limit</b>	NOT RELEVANT
<b>Evaporation Rate</b>	AS FOR WATER		

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable under recommended conditions of storage.
<b>Conditions to Avoid</b>	Avoid heat, sparks, open flames and other ignition sources.
<b>Material to Avoid</b>	Incompatible with oxidising agents (eg. peroxides) and acids (eg. hydrochloric acid).
<b>Decomposition</b>	May evolve toxic gases if heated to decomposition.
<b>Hazardous Reactions</b>	Polymerization is not expected to occur.

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## 11. TOXICOLOGICAL INFORMATION

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<b>Health Hazard Summary</b>	Low toxicity - low irritant. This product may only present a hazard with direct eye contact or with prolonged and repeated skin contact. No chronic effects are anticipated with normal use.
<b>Eye</b>	Low irritant. Contact may result in irritation and lacrimation.
<b>Inhalation</b>	Low irritant. Over exposure at high levels may result in mucous membrane irritation of the nose and throat with coughing.
<b>Skin</b>	Low irritant. Prolonged or repeated contact may result in mild irritation, rash and dermatitis.
<b>Ingestion</b>	Low toxicity. Ingestion of large quantities may result in nausea, vomiting and gastrointestinal irritation.
<b>Toxicity Data</b>	No LD50 data available for this product.

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## 12. ECOLOGICAL INFORMATION

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<b>Environment</b>	Plant nutrients may be beneficial to plants at low levels, however high levels may cause reduced growth or burns in sensitive species. Excess may be washed through soil to waterways. Nutrients released to waterways may cause algal blooms, with potential for toxic effects on aquatic organisms.
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## 13. DISPOAL CONSIDERATIONS

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<b>Waste Disposal</b>	For small amounts, absorb with sand or similar and dispose of to an approved landfill site. Contact the manufacturer for additional information. Ensure that appropriate personal protective equipment is used during disposal.
<b>Legislation</b>	Dispose of in accordance with relevant local legislation.

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## 14. TRANSPORT INFORMATION

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### NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

<b>Shipping Name</b>	None Allocated				
<b>UN No.</b>	None Allocated	<b>DG Class</b>	None Allocated	<b>Subsidiary Risk(s)</b>	None Allocated
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## 15. REGULATORY INFORMATION

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<b>Poison Schedule</b>	A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).
<b>AICS</b>	All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

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## 16. OTHER INFORMATION

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<b>Additional Information</b>	<p>EXPOSURE STANDARDS - TIME WEIGHTED AVERAGES: Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).</p> <p>ABBREVIATIONS: ADB - Air-Dry Basis. BEI - Biological Exposure Indice(s) CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds. CNS - Central Nervous System. EINECS - European INventory of Existing Commercial chemical Substances. IARC - International Agency for Research on Cancer. M - moles per litre, a unit of concentration. mg/m3 - Milligrams per cubic metre. NOS - Not Otherwise Specified. NTP - National Toxicology Program. OSHA - Occupational Safety and Health Administration. pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline). ppm - Parts Per Million. RTECS - Registry of Toxic Effects of Chemical Substances.</p>
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TWA/ES - Time Weighted Average or Exposure Standard.  
HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

**Report Status**            This document has been compiled by the manufacturer of the product and serves as the manufacturer's Material Safety Data Sheet ('MSDS').

It is based on information concerning the product and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While AGMIN CHELATES PTY LTD has taken all due care to include accurate and up-to-date information in this MSDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, AGMIN CHELATES PTY LTD accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this MSDS.

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**MSDS Date:** 08 Feb 2011

**End of Report**