




# Safety Data Sheet

Maxi Mang revision SDS 01 7<sup>th</sup> Feb 2017

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	Maxi Mang™
<b>Other Names</b>	None
<b>Uses:</b>	Plant food, activator and catalyst, for professional applicators
<b>Chemical family</b>	Inorganic mineral based plant nutrition
<b>Chemical formula</b>	Compounded product see section 3
<b>Chemical name</b>	No Data Available
<b>Product description</b>	Liquid fertiliser, for the correction/prevention of nutrient deficiencies
<b>Contact details of the supplier of this Safety Data Sheet</b>	
<b>Company Name</b>	Agrichem
<b>Company address</b>	2 Hovey Rd Yatala QLD 4207 Australia
<b>Phone number</b>	+ 61 7 3451 0000
<b>Emergency contact</b>	Poison Information Centre Australia – <b>13 11 26</b>

## 2. HAZARD IDENTIFICATION

<b>Poisons Schedule (Australian (SUSMP))</b>	Not listed												
<b>Globally Harmonised System Hazard classification</b>	Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia code of practice, preparation of Safety Data Sheets for hazardous chemicals (SWACOPSDS).												
<b>Hazard Category</b>	Acute oral category 4												
<b>Pictograms</b>	<p>Exclamation mark</p> 												
<b>Signal word</b>	Warning												
<b>Hazard Statements</b>	<table> <tr> <td>Health hazard</td> <td>H302+H312+H332</td> <td>Harmful if swallowed, in contact with skin, or if inhaled.</td> </tr> <tr> <td></td> <td>H320</td> <td>Causes eye irritation.</td> </tr> </table>	Health hazard	H302+H312+H332	Harmful if swallowed, in contact with skin, or if inhaled.		H320	Causes eye irritation.						
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<b>Precautionary Statements</b>	<table> <tr> <td>Prevention</td> <td>P234</td> <td>Keep only in original container.</td> </tr> <tr> <td></td> <td>P264</td> <td>Wash exposed skin thoroughly after handling.</td> </tr> <tr> <td></td> <td>P280</td> <td>Wear protective gloves/protective clothing/eye protection/face protection</td> </tr> <tr> <td></td> <td>P273</td> <td>Avoid release to the environment.</td> </tr> </table>	Prevention	P234	Keep only in original container.		P264	Wash exposed skin thoroughly after handling.		P280	Wear protective gloves/protective clothing/eye protection/face protection		P273	Avoid release to the environment.
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Response	P301+330+331	IF SWALLOWED: Rinse mouth. Do Not induce vomiting.
	P303+361+353	IF ON SKIN: (or hair) Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
	P304+340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
	P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	P310	Immediately call POISON CENTRE or doctor/physician
Disposal	P405	Store locked up
	P501	Dispose of contents / container in accordance with local/regional/national or international regulations

### National Transport Commission (Australian)

Australian Code for the transport of Dangerous Goods by Road and Rail (ADG Code)

### Dangerous Goods Classification

Is **NOT** a Dangerous Goods according to the criteria of the ADG Code for road or rail transport ref ADG Code 7.4.

### 3. INFORMATION ON INGREDIENTS

#### Ingredients

Chemical entity	CAS Registry Number	Proportion %w/w
Water	7732-18-5	Balance
Manganese carbonate	598-62-9	<60

No other ingredients present which to the knowledge of the supplier and at the concentrations present, are classified as hazardous to health or the environment thereby require reporting in this section.

### 4. FIRST AID MEASURES

#### Description of necessary measures according to routes of exposure

<b>Swallowed</b>	Call the Poisons Information Centre Australia or a doctor for treatment advice. Have the person sip a glass of water / milk if able to swallow. Do not induce vomiting unless told to do so by the Poison Information Centre or by a doctor. Do not give anything by mouth to an unconscious person.
<b>Eye</b>	Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Remove contact lenses if present and easy to do so. Call a medical doctor or poison information centre for treatment advice.
<b>Skin</b>	Immediately remove any contaminated clothing. Wash skin, & hair with soap or mild detergent and water for at least 15 minutes. Call the Poison Information Centre or a medical doctor for treatment advice if irritation persists. Wash clothing before re-use.



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<b>Inhalation</b>	Remove to fresh air. If not breathing call ambulance, give artificial respiration, use pocket mask with one way valve or other respiratory medical device. If breathing is difficult give oxygen. Call a doctor / physician or the Poison Information Centre for treatment advice.
<b>Advice to Doctor</b>	Treat symptomatically based on judgement of doctor and individual reactions of patient.
<b>Medical Conditions Aggravated by Exposure</b>	No Data Available

Have the product container or label with you when calling the Poison Information Centre or a doctor or going for treatment.

### 5. FIRE FIGHTING MEASURES

<b>General measures</b>	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.
<b>Flammability conditions</b>	Non-combustible, aqueous suspension.
<b>Extinguishing Media</b>	Use any means suitable for extinguishing surrounding fire.
<b>Fire and Explosion Hazard</b>	Non-combustible. Containers if heated, resultant increase in pressure may cause container to burst.
<b>Hazardous Products of Combustion</b>	May include the following, carbon monoxide & dioxide nitrogen oxides and manganese oxide/oxides. Avoid breathing vapours, fumes and dust from burning product. Inhalation of decomposition products caused by fire, symptoms may be delayed.
<b>Special Fire Fighting Instructions</b>	Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
<b>Personal Protective Equipment</b>	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).
<b>Flash point</b>	No data available
<b>Lower Explosion Limit</b>	No data available
<b>Upper Explosion Limit</b>	No data available
<b>Auto ignition Temperature</b>	No data available
<b>Hazchem Code</b>	No data available



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## 6. ACCIDENTAL RELEASE MEASURES

<b>General Response Procedures</b>	Avoid accidents, clean up immediately. Slippery when spilt. Eliminate all sources of ignition. Increase ventilation. Avoid generating dust from dried product. Stop leak if safe to do so. Isolate the danger area. Use clean non sparking tools and equipment.
<b>Clean up Procedures</b>	<p>Land spill:</p> <p>Dike spill with using absorbent or impervious materials such as earth, sand or clay. Vacuum, shovel, pump or sweep up the product and place in containers for disposal in accordance with applicable local regulations. Avoid contamination of water bodies during clean up and disposal. See containment section below.</p> <p>Spillage into water:</p> <p>Where possible, remove any intact containers from the water. Advise local water authority that none of the affected water should be used for irrigation or for the abstraction of potable water until natural dilution returns the elements listed in section 3 to its normal environmental background level. Product is largely insoluble, and will over time settle on bottom of water way and may be removed by dredging / skimming top sediment layer from the bottom of waterway.</p>
<b>Containment</b>	Stop Leak if safe to do so. Isolate the danger area. Dike and absorb spill using inert absorbent materials such as earth, sand, clay, zeolite, or diatomaceous earth
<b>Environmental Precautionary Measures</b>	DO NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority and local Waste Management. The product is largely insoluble in water however high concentrations may cause damage to plant roots and foliage via absorption (see section 12)
<b>Evacuation Criteria</b>	Evacuate all unnecessary personal from immediate area
<b>Personal Precautionary Measures</b>	Personal involved in the clean-up should wear full protective clothing as listed in section 8. Note adding water to this product will cause rapid heating and possible steam explosion.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Prevent against physical damage. Wash hands after handling this material. Good housekeeping splash and dust (when product dries) prevention procedures should be followed to minimize exposure and accumulation. Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Avoid contact with eyes, skin and clothing. Do not inhale product mist, spray or fumes. Your supplier can advise you on safe handling, please contact the supplier. Apply above handling advice when mixing with other substances.
<b>Storage</b>	Store in a cool, dry, well-ventilated area. Keep containers tightly closed if not in use. Inspect regularly for hazards such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Do not store with food stuffs. Use good housekeeping practices to prevent accumulation of product and follow sound cleaning techniques that will prevent contamination. Dry indoor storage is recommended. Provide appropriate ventilation and store containers such as to prevent any accidental damage.



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Container

Store in original packaging as approved by manufacturer

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**General**

No Data Available for this product. Limited data is available for the components and is listed below.

**Ingredient**

Manganese  
carbonate

**Exposure standard**

TWA based on elemental Manganese in dust form is 1mg/m<sup>3</sup>

This exposure standard is a guide to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as sharp delineations between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

**Exposure Limits**

No Data Available ref to above TWA's for product components

**Biological limits**

No information on biological limit values for this product.

**Engineering Measures**

A system of local and or general exhaust is recommended to keep employee exposure as low as possible. Local exhaust extraction / ventilation is preferred as it controls emissions at the source preventing dispersion of the general work area. Adequate ventilation should be provided so that exposure limits are not exceeded.

**Personal Protection  
Equipment PPE**

RESPIRATOR: Respirators should be used for conditions of use where exposure to spray or mist is apparent and engineering controls are not feasible, a full face gas respirator should be worn (AS1715/1716).

EYES: Use chemical safety goggles. Maintain eye wash fountain and quick drench facilities in work area (AS1336/1337).

HANDS: Gloves, chemical resistant (AS2161).

CLOTHING: Lab coat, apron or coveralls and safety footwear (AS3765/2210).

**Work Hygienic practices**

Thoroughly wash hands, forearms and face after using product, prior to eating, smoking using toilet or at end of work period. Contaminated clothing to be laundered prior to re-use.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state**

Liquid



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<b>Appearance</b>	opaque suspension
<b>Odour</b>	Slight, Characteristic
<b>Colour</b>	Beige / brown
<b>pH</b>	8.0 – 9.5
<b>Vapour pressure</b>	No Data Available
<b>Relative Vapour Density</b>	No Data Available
<b>Boiling point</b>	No Data Available
<b>Melting point</b>	No Data Available
<b>Freezing point</b>	< 4 deg Celsius
<b>Solubility in water</b>	Insoluble
<b>Specific gravity</b>	1.83 – 1.86
<b>Flash point</b>	No Data Available
<b>Auto Ignition Tem</b>	No Data Available
<b>Decomposition temp</b>	No Data Available
<b>Molecular weight</b>	No Data Available
<b>Particle size</b>	No Data Available
<b>Particle size distribution</b>	No Data Available
<b>Viscosity</b>	No Data Available

**Note:** Physical data are typical values but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

### 10. STABILITY AND REACTIVITY

<b>General Information</b>	This product is stable under normal handling and storage conditions.
<b>Chemical Stability</b>	Stable under ordinary conditions.
<b>Conditions to Avoid</b>	Excessive heat, do not store near heat or flames.
<b>Materials to Avoid</b>	<ol style="list-style-type: none"> <li>1. Strong bases- may decompose vigorously, may release ammonia.</li> <li>2. Strong oxidizing agents – may decompose.</li> </ol>
<b>Hazardous Products of Decomposition</b>	Under normal handling and storage conditions, hazardous products of decomposition should not be produced



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**Hazardous Polymerization**

No Data Available

## 11. TOXICOLOGICAL INFORMATION

**General Information** No Data Available for the product

**Eye Irritant** May cause irritation

**Ingestion** Harmful if swallowed

**Inhalation** May be harmful if inhaled

**Skin Irritant** May cause skin irritation

**Reproduction** No Data Available

**Carcinogen Category** No Data Available

### Toxicity for components of this product

Ingredient	Exposure route	Species	Dose	Ref
Manganese carbonate	Oral	In the Rat	LD <sub>50</sub> >2000 mg/kg	ECHA

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** No Ecological information is available for this product

Algal toxicity: No Data Available

Invertebrate toxicity: No Data Available

**Persistence/ Degradability** No Data Available

**Mobility** Fully water soluble.

**Environmental Fate** Do NOT let product reach waterways, drains and sewers

**Bioaccumulation** Not Data Available

**Environmental impact** No Data Available



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## Eco toxicity for components of this product

Ingredient	Exposure	Species	Dose	Ref
Manganese carbonate	48 hours	Daphnia magna	EC <sub>50</sub> >3.6 mg/l fresh water	ECHA

## 13. DISPOSAL CONSIDERATIONS

### General Information

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

### Special Precautions for Landfill

Small quantities of this product can usually be disposed of at Liquid Waste Disposal sites. No special disposal treatment is required, but local authorities should be consulted about any specific local requirements. Larger volumes of this product are not recommended to be sent to Liquid Waste Disposal sites. Such product should, if possible, be used for an appropriate application. Do not incinerate as oxides of sulphur may be produced.

## 14. TRANSPORTATION INFORMATION

### Land Transport, Australian Dangerous Goods Code (ADG Code)

	This product is not considered a goods and is not subject to the provisions of ADR Code for transport by road or rail.
<b>Proper Shipping Name</b>	Not applicable to non-dangerous goods
<b>Class</b>	Not applicable to non-dangerous goods
<b>EPG</b>	Not applicable to non-dangerous goods
<b>UN Number</b>	Not applicable to non-dangerous goods
<b>Packaging group</b>	Not applicable to non-dangerous goods

## 15. REGULATORY INFORMATION

<b>General information</b>	Australian inventory ((AICS(NICNAS) all components are either listed or exempt
<b>Poisons Schedule</b>	Not listed

## 16. OTHER INFORMATION

The information contained in this SDS is by way of general comment only. Because conditions of use, suitability of product and application conditions are beyond the control of Agrichem, this SDS does not offer any advice in respect to any product. The authors and Agrichem Manufacturing Industries Pty Ltd hereby disclaim any liability to any person, property, or thing in respect of any consequence of anything done or omitted to be done by any person in reliance, whether wholly or in part, upon whole or part of the contents of this SDS.





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## Key

< Less than  
> Greater than  
**a.i.** Active ingredient  
**ADG Code** Australian dangerous goods code  
**AICS** Australian Inventory of Chemical Substances  
**ATE** Acute toxicity estimation  
**atm** Atmosphere  
**CAS** Chemical Abstract Service (registry number)  
**Cm<sup>2</sup>** Square Centimetres  
**CO<sub>2</sub>** Carbon Dioxide  
**deg C (°C)** Degrees Celsius  
**EPA** Environmental Protection Agency based in each state of Australia  
**g** Grams  
**g/cm<sup>3</sup>** Grams per Cubic Centimetre  
**g/l** Grams per Litre  
**HSIS** Hazardous substances information system  
**HSNO** Hazardous substances and New Organism  
**HDPE** High density polypropylene  
**IDLH** Immediately Dangerous to Life and Health  
**Immiscible** Liquid are insoluble in each other  
**inHg** inch of Mercury  
**InH<sub>2</sub>O** Inch of Water  
**K** Kelvin  
**kg** Kilogram  
**kg/m<sup>3</sup>** Kilogram per Cubic Metre  
**LC<sub>50</sub>** LC stands for lethal concentration, LC<sub>50</sub> is the concentration of a product in air that will cause the death of 50% of a population of test animals. Product is normally inhaled for between 1 and more typically 4 hours  
**LD<sub>50</sub>** LD stands for lethal dose. LD<sub>50</sub> is the amount of product given in a single dose, causing death in 50% of a population of test animals.  
**LDLo** The lowest amount of a solid or liquid material reported to have caused the death of animals or humans  
**m<sup>3</sup>** Cubic Metre  
**mbar** Millibar  
**mg** Milligram  
**mg/24H** Milligrams per 24 hours  
**mg/kg** Milligrams per Kilogram  
**mg/m<sup>3</sup>** Milligrams per Cubic Metre  
**Misc** or **Miscible** Liquids from one homogeneous liquid phase regardless of the amount of either component present  
**mm** Millimetre  
**mmH<sub>2</sub>O** Millimetres of Water  
**mPa.s** Millipascals per Second  
**MSHA** Mine safety and health administration  
**N/A** Not Applicable  
**NIOSH** National Institute for Occupational Safety and Health  
**NOHSC** National Occupational Health and Safety Commission  
**OECD** Office for Economic Co-operation and Development  
**PEL** Permissible Exposure Limit  
**Pa** Pascal  
**ppb** Parts per Billion  
**PPE** personal protective equipment  
**ppm** Parts per Million



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**ppm/2h** Parts per million per 2 hours

**ppm/6h** Parts per million per 6 hours

**psi** Pounds per square inch

**R** Rankine

**RCP** Reciprocal Calculation Procedure

**SCBA** Self Contained Breathing Apparatus

**SWA** Safe Work Australia

**STEL** Short Term Exposure Limit

**TVL** Threshold Limit Value

**TWA** Time Weighted Average

**UN** United Nations

**wt** Weight

**End of SDS**