

**Magnesium Sulphate Heptahydrate****Section 1 - Identification of Chemical Product and Company**

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Trade Name: Magnesium Sulphate Heptahydrate  
Other Names: Epsom Salts, Bitter Salt  
Product Use: Fertiliser (soil nutrient)  
Revision Date: June 2011

**Section 2 - Hazards Identification****Statement of Hazardous Nature**

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA OF ASCC

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

SUSDP Classification: None allocated.

Risk Phrases: Not Hazardous according to criteria of ASCC

Safety Phrases: Not Hazardous according to criteria of ASCC

**Emergency Overview**

Physical Description &amp; colour: Greyish white crystalline solid

Odour: Odourless

Major Health Hazards: No significant risk factors have been found for this product in normal use.

**Potential Health Effects****Inhalation:** If product in high concentrations of airborne dust, prolonged contact may cause irritation to the nose and throat.**Skin Contact:** Mildly irritating to skin. If exposed to frequent and prolonged contact can cause dermatitis or skin irritations**Eye Contact:** Can cause mild irritation to eyes**Ingestion:** Low toxicity. With large doses, ingestion may result in diarrhoea, nausea, vomiting and cramps**Carcinogen Status:****ASCC:** No significant ingredient is classified as carcinogenic by ASCC**NTP:** No significant ingredient is classified as carcinogenic by NTP.**IARC:** No significant ingredient is classified as carcinogenic by IARC.**Section 3 - Composition/Information on Ingredients**

Ingredients	CAS No	TWA (mg/m3)	STEL (mg/m3)
Magnesium Sulphate Heptahydrate	10034-99-8	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly

**Section 4 - First Aid Measures**

**General Information:** You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia and is available at all times. Have this MSDS with you when you call.

**Inhalation:** Inhalation is not normally harmful. Recovery is rapid after removal from exposure. If symptoms are experienced, remove victim to fresh air.

**MATERIAL SAFETY DATA SHEET**

**Skin Contact:** Remove contaminated clothing and wash thoroughly with soap and water. Seek medical attention if irritation develops. Launder clothing before reuse.

**Eye Contact:** Hold eye open and flush gently with copious amounts of water for 15 minutes. Seek medical attention if irritation develops.

**Ingestion:** If swallowed in large quantities, immediately rinse mouth out with water. Give water. Contact Poisons Information Centre or doctor. Do not induce vomiting unless advised to do so.

**Advice to Doctor:** Treat symptomatically

## Section 5 - Fire Fighting Measures

**Fire and Explosion Hazards:** Non- flammable. No fire or explosion hazards exist. Decomposition may give rise to toxic and noxious fumes

**Extinguishing Media:** Media to suit materials involved in fire.

**Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade.

**Flash point:** Non Flammable

**Upper Flammability Limit:** Not applicable

**Lower Flammability Limit:** Not applicable

**Auto ignition temperature:** Not applicable

**Flammability Class:** Does not burn.

**Hazchem Code:** None allocated

## Section 6 - Accidental Release Measures

**Spillage:** Minor spills do not normally need any special cleanup measures. In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recovered product into labelled containers for recycling or salvage, and dispose of promptly. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

## Section 7 - Handling and Storage

**Handling:** 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.

**Storage:** Store in cool, dry, well ventilated area removed from combustible materials, herbicides, fungicides and foodstuffs. Ensure containers are labelled, protected from physical damage and sealed when not in use. Keep from extreme heat and open flames and make sure that the product does not come into contact with substances listed under "Materials to avoid" in Section 10. Bagged fertilisers should be stored under cover and out of direct sunlight

## Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Industrial Clothing: **AS2919**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

Exposure Limits	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )	ADI (mg/Kg/day)	NOEL (mg/Kg/day)
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*Exposure limits have not been set for this product. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. A TWA has not been established by Worksafe Australia for any of the major ingredients in this product. There is a blanket limit of 10mg/m<sup>3</sup> for dusts or mists when limits have not otherwise been established. The nature of this product makes it unlikely that this level will be approached in normal use. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, Dec 2003.*

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** Avoid high dust concentration and provide local exhaust ventilation where necessary.

**Eye Protection:** Eye protection such as protective glasses or goggles is recommended when using this product.

**Skin Protection:** Wear gloves or gauntlets and long sleeves when using this product to protect against skin irritation

**Respirator:** Use P2 type canister respirator where high concentrations of airborne dust is present  
Provision of eye wash facilities and safety shower recommended.

Wash hands before eating, drinking, smoking or going to toilet, launder protective clothing before re-use.

### **Section 9 - Physical and Chemical Properties:**

<b>Physical Description &amp; colour:</b>	Greyish White crystalline solid
<b>Odour:</b>	Odourless
<b>Melting Point:</b>	150°C
<b>Decomposition Temperature:</b>	Decomposes > 1124°C
<b>Flash Point:</b>	Non-flammable
<b>Vapour Pressure:</b>	N/A
<b>Density:</b>	1.97 – 2.4
<b>Solubility:</b>	Soluble in water. Insoluble in oil and solvents
<b>pH:</b>	Approx 7
<b>Auto ignition temp:</b>	Not applicable

### **Section 10 - Stability and Reactivity**

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions.

**Conditions to Avoid:** Heat, flames.

**Incompatibilities:** no special incompatibilities

**Fire Decomposition Products:** Decomposition may give rise to toxic and noxious fumes

**Polymerisation:** This product is unlikely to undergo polymerisation processes.

### **Section 11 - Toxicological Information**

**Health Hazard Summary:** Low toxicity. This product may only present a hazard with eye contact, prolonged and repeated skin contact or with dust inhalation at high levels

**Toxicity to Animals:**

LD50 No data available for this product

### **Section 12 - Ecological Information**

**Environment:** Avoid contamination of waterways.

**Ecotoxicity effects:** No data

**Persistence/degradation:** No data

### **Section 13 - Disposal Considerations**

**Disposal:** There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. The Hierarchy of Controls seems to be common - the user should investigate: Reduce, Reuse, and Recycle and only if all else fails should disposal be considered. Special help is available for the disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 <http://www.chemclear.com.au/> and for help with the disposal of empty drums, contact DrumMuster <http://www.drummuster.com.au/>

## Section 14 - Transport Information

**ADG Code:** This product is NOT classified as a Dangerous Good.  
Not a Dangerous Good for transport by sea or air

## Section 15 - Regulatory Information

**Poison Schedule:** 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)

**AICS:** All of the significant ingredients in this formulation are to be found in the public AICS Database.

## Section 16 - Other Information

**This MSDS contains only safety-related information. For other data see product literature.**

### Acronyms:

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail
<b>AICS</b>	Australian Inventory of Chemical Substances
<b>ASCC</b>	Office of the Australian Safety and Compensation Council
<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>Hazchem Number</b>	Emergency action code of numbers and letters that provide information to emergency services especially fire fighters
<b>IARC</b>	International Agency for Research on Cancer
<b>NOHSC</b>	National Occupational Health & Safety Commission
<b>NTP</b>	National Toxicology Program (USA)
<b>SUSDP</b>	Standard for the Uniform Scheduling of Drugs & Poisons
<b>UN Number</b>	United Nations Number

*THIS MSDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS MSDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.*

*IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.*

Please read all labels carefully before using product. This MSDS is prepared in accord with the ASCC document "National Code of Practice for the Preparation of Material Safety Data Sheets" 2nd Edition [NOHSC:2011(2003)]

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