

Safety Data Sheet

Magnesium Sulphate

Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

Product Name:	Magnesium Sulphate
Other Names:	Magnesium Sulphate Heptahydrate; Sulphuric Acid, Magnesium (II) Salt Heptahydrate; Epsom Salts; Epsotop; Bittersalz
Product Code:	0004010 (Technical/fertiliser grade) 8150010 (Animal Health grade)
Recommended Use:	Fertiliser additive
Restrictions of Use:	Refer to Section 15
Company Identification:	Ravensdown Limited
Address:	292 Main South Road, Hornby, Christchurch, 8042 PO Box 1049, Christchurch 8011
Customer Centre:	0800 100 123
National Poisons Information Centre:	0800 POISON (0800 764 766)
Emergency Phone Number:	0800 CHEMCALL (0800 243 622) (24hr) (Emergencies Only)
Transport Emergency Phone Number:	111 - tell operator what service is needed: Fire, Ambulance or Police
Date of SDS Preparation	17 March 2025 v2

Section 2: HAZARD IDENTIFICATION

This substance is NOT hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

Section 3: COMPOSITION INFORMATION

INGREDIENT	CAS No.	CONTENT
Magnesium Sulphate Heptahydrate	10034-99-8	95-100%

Section 4: FIRST AID MEASURES

Routes of Exposure:	
If in eyes:	Flush with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance if needed.
If on skin:	Remove contaminated clothing and wash affected area thoroughly with soap and water. If a large area is affected seek medical assistance.
If ingested:	Never give anything by mouth to an unconscious person. If swallowed DO NOT induce vomiting. For advice, contact the National Poisons Centre on 0800 POISON (0800 764 766). Seek medical assistance if needed.
If inhaled:	Remove patient to fresh air. Lay down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance if needed.
Most important symptoms and effects, both acute and delayed	
Symptoms:	
Eyes:	Not applicable.
Skin:	Not applicable.
Ingested:	Not applicable.

Inhaled:	Inhalation of dust may be irritating.
Notes to Doctor:	No specific antidote. Treat symptomatically. If vomiting is induced, suggest endotracheal and/or oesophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach.

Section 5: FIRE FIGHTING MEASURES

Hazard Type	Non Flammable
Hazards from combustion products	Sulphur oxides, magnesium oxide
Suitable Extinguishing media	Based on surrounding materials.
Precautions for firefighters and special protective clothing	Breathing apparatus, goggles and protective gloves.
HAZCHEM CODE	None allocated

Section 6: ACCIDENTIAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
Wear appropriate protective clothing as detailed in Section 8. Exclude non-essential people from the area.
Environmental precautions:
Avoid from entering drains, waterways or sewers.
Methods and material for containment and cleaning up:
Contain spill and absorb with inert material such as soil, sand or absorbent granules and place in a sealable waste container. Dispose of according to Section 13.

Section 7: HANDLING AND STORAGE

Handling:	Always read the label before use. Keep out of reach of children. Avoid contact with skin, eyes and inhalation of vapours. Use personal protective equipment as required.
Storage:	Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertiliser and seed. Store in accordance with NZS 8409; Management of Agrichemicals. See label for further information on handling and storage.

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³

No exposure limits have been assigned for this product.

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices FEB 2025 15TH EDITION.

Engineering Controls:	Handle in well-ventilated area. Avoid inhalation of dust.
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Personal Protection Equipment:	
Eyes:	Not required.
Skin/Hands:	When contact with product is likely, wear protective gloves.
Respiratory:	Not required.

General:	Do not eat, drink or smoke while using this product. Remove protective clothing and wash hands and face before meals and after work. Wash protective clothing daily after work. Contaminated clothing should not be allowed out of the workplace.
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Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Powder
Colour	Colourless crystal or white
Odour	Odourless
Odour Threshold	Not available
pH	5 – 8 (50g/l in water @ 20°C)
Boiling Point	Not available
Melting Point	Loses all waters of hydration at 250°C and decomposes at 1,124°C
Freezing Point	Not available
Flash Point	Not available
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Specific Gravity	1.05
Water Solubility	Very soluble
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available

Section 10: STABILITY AND REACTIVITY

Stability of Substance	Stable but releases waters of crystallisation when heated. When stored appropriately this product should show no significant degradation for at least 5 years from the date of manufacture.
Possibility of hazardous reactions	No data available.
Conditions to Avoid	High humidity.
Incompatible Materials	Ethoxy ethyl alcohols, arsenates, phosphates, tartrates, lead, barium, strontium, and Calcium.
Hazardous Decomposition Products	Sulphur oxides.

Section 11: TOXICOLOGICAL INFORMATION

Acute Effects:

Swallowed	Not triggered Ingestion of large quantities may lead to nausea, vomiting, diarrhoea, flushing of the skin, thirst hypertension, respiratory depression. May have a laxative effect.
Dermal	Not applicable.
Inhalation	Not triggered however Inhalation of dust may be irritating.
Eye	Not applicable.
Skin	Not applicable.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.

STOT/RE	Not applicable.
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Section 12: ECOLOGICAL INFORMATION

Not considered an ecotoxic substance.

Product:	
Persistence and degradability	No data available.
Bioaccumulation	No data available.
Mobility in Soil	No data available.
Other adverse effects	No data available.

Section 13: DISPOSAL INFORMATION

Disposal Method:	Dispose of product only by using according to label or at an approved landfill. Recycle where possible. Do not contaminate bodies of water with chemical or empty container.
Container Disposal:	Triple rinse container. Triple rinsed 20 litre containers containing the Agrecovery logo on the label, and that are free of all residues and have an intact legible label, may be taken to an Agrecovery collection site for disposal. Burn in an appropriate incinerator if circumstance, such as wind direction permit. Otherwise crush and bury in an approved landfill or recycle through an alternative approved recycling scheme. Do not burn container or use container for any other purpose.
Precautions or methods to avoid:	None known.

Section 14: TRANSPORT INFORMATION

This product is NOT classified as a Dangerous Good for transport in NZ ; NZS 5433:2020

Section 15: REGULATORY INFORMATION

This substance is NOT classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

HSW (HS) Regulations 2017	Trigger Quantity
Signage Trigger Quantities (Schedule 3)	Not required
Emergency Response Plan (Schedule 5)	Not required
Secondary Containment (Schedule 5)	Not required
Tracking (Schedule 26)	Not required
Certified Handlers	Not required
Restrictions of use	None known.

Section 16: OTHER INFORMATION

Glossary

Cat	Category
EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices FEB 2025 15th edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact Ravensdown, if further information is required.

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Product Name: Magnesium Sulphate
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