

Ferrous Sulphate Monohydrate

Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

Product Name:	Ferrous Sulphate Monohydrate
Other Names:	Sulfuric acid, iron salt monohydrate
Product Code:	N/A
Recommended Use:	As a fertiliser ingredient.
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	20 July 2021

Section 2: HAZARD IDENTIFICATION

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval No:	Additives, Process Chemicals and Raw Materials (subsidiary) - HSR002503
Pictograms:	
Signal Word:	Warning

HSNO Classification	Hazard Code	Hazard Statement
Acute oral toxicity Cat. 4	H302	Harmful if swallowed.

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P330	Rinse mouth.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Storage Code	Storage Statement
None allocated	

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3: COMPOSITION INFORMATION

INGREDIENT	CAS No.	CONTENT
Ferrous Sulphate Monohydrate	13463-43-9	100%

Section 4: FIRST AID MEASURES

Routes of Exposure:	
If in eyes:	Flush with plenty of water for several minutes, holding eyelids open if necessary. Remove contact lenses if present and easy to do. Seek medical attention
If on skin:	Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse.
If ingested:	Rinse mouth. Never give anything by mouth to an unconscious person. If swallowed DO NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.
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:	Harmful if swallowed.
Inhaled:	Not applicable.
Advice to Doctor	Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Hazard Type	Non Flammable
Hazards from combustion products	Sulphur dioxide
Suitable Extinguishing media	Water. Use water fog to cool intact containers. Prevent run-off from entering waterways.
Precautions for firefighters and special protective clothing	Full protective clothing and equipment including SCBA.
HAZCHEM CODE	None allocated

Section 6: ACCIDENTIAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
Wear appropriate protective clothing. Evacuate non personnel.
Environmental precautions:
Avoid from entering drains, waterways or sewers.
Methods and material for containment and cleaning up:
Contain spill and sweep up. Collect and place in sealable containers. Avoid generating dust. Reuse or recycle where possible. Dispose as per Section 13.

Section 7: HANDLING AND STORAGE

Handling:	Read label before use. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.
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	Avoid generating dusts, do not breathe dusts. Use only outdoors or in a well-ventilated area. Avoid contact with material.
Storage:	Store away from incompatible materials listed in Section 10. Store in a cool, dry, well-ventilated area. Store away from foodstuffs.

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 NOV 2020 12TH EDITION.

Engineering Controls:	Handle in well-ventilation area. If dust generated use local extraction to control. Avoid inhalation of dust.
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Personal Protection Equipment:	
	
Eyes:	Safety glasses. If dusts present wear goggles. Ensure eye wash facilities should be available.
Skin/Hands:	When contact with product is likely, wear protective gloves and overalls
Respiratory:	If dusts present wear dust mask.
General:	Remove protective clothing and wash hands and face after working with substance.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Crystals/Granules
Colour	Off-White, White to light Grey
Odour	Odourless
Odour Threshold	Not available
pH	(50g.L ⁻¹ in water, 20°C) 2.4-2.8
Boiling Point	Not available
Melting Point	64°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	Not available
Bulk Density	Not available
Water Solubility	Soluble
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available

Particle Characteristics	Not available
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Section 10: STABILITY AND REACTIVITY

Stability of Substance	Stable under normal conditions.
Possibility of hazardous reactions	Not available
Conditions to Avoid	Ignition sources, heat.
Incompatible Materials	Oxidising materials.
Hazardous Decomposition Products	Sulphur dioxide
Hygroscopic	No

Section 11: TOXICOLOGICAL INFORMATION

Acute Effects:

Swallowed	Harmful if swallowed. May lead to nausea, vomiting, diarrhea, constipation, gastrointestinal tract disturbances. May also affect central nervous system, cardiovascular system, liver, kidneys. LD ₅₀ (oral, rat) 319 mg.kg
Dermal	Not applicable.
Inhalation	Irritant. May cause respiratory tract irritation (nose & throat).
Eye	Irritant. Exposure to dusts may result in irritation and lachrymation (tears).
Skin	Mild Irritant. Prolonged and repeated skin exposure may result in irritation.

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.
Other Information	No adverse health effects expected under normal conditions. Avoid eye and skin exposure and inhalation.

Section 12: ECOLOGICAL INFORMATION

This product is not hazardous to the environment. Avoid unintended release and washing excessive amounts into streams and waterways.

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:	Observe any local authority restrictions that may apply. Collection into sealable containers and dispose of in an approved land fill. If practicable apply excess fertiliser at recommended rates to appropriate land. Reuse material where practicable.
Container Disposal:	Rinse containers thoroughly prior to reuse. Otherwise render unusable and dispose of as waste.
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 5433:2012

Section 15: REGULATORY INFORMATION

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval Code: Additives, Process Chemicals and Raw Materials (subsidiary) - HSR002503

GHS Classification: Acute oral toxicity Cat. 4

HSW (HS) Regulations 2017	Trigger Quantity
Signage Trigger Quantities (Schedule 3)	10 000kg
Emergency Response Plan (Schedule 5)	1000kg
Secondary Containment (Schedule 5)	1000kg
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 Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact Ravensdown, if further information is required.

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