Safety Data Sheet

Poly Ferric Sulphate

Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

Product Name:	**Poly Ferric Sulphate**
Product Code:	N/A
Recommended Use:	Flocculation agent for water treatment in municipal water supplies. Phosphate removal in sewage treatment.
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	10 February 2022 v2

Section 2: HAZARD IDENTIFICATION

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

EPA Approval No:	Water Treatment Chemicals (Corrosive) – HSR002681
Pictograms:	
Signal Word:	**DANGER**

GHS Classification and Category	Hazard Code	Hazard Statement
Acute oral toxicity Cat. 4	H302	Harmful if swallowed.
Corrosive to metals Cat. 1	H290	May be corrosive to metals.
Skin corrosion Cat. 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage Cat. 1	H318	Causes serious eye damage.

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P234	Keep only in original container.
P260	Do not breathe dust, fumes, gas, mist, vapours or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective clothing as detailed in Section 8.

Response Code	Response Statement

P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301 + P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage Code	**Storage Statement**
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.

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

Section 3: COMPOSITION INFORMATION

INGREDIENT	CAS No.	CONTENT
Sulphuric Acid, Iron (III), salt (polyferric Sulphate)	10028-22-5	60
Water	7732-18-5	40

Section 4: FIRST AID MEASURES

Routes of Exposure:	
If in eyes:	Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.
If on skin:	If spilt on large areas of skin or hair, immediately drench with running water and remove clothing. Continue to wash skin and hair with plenty of water (and soap if material is insoluble) until advised to stop by the Poisons Information Centre or a doctor. If skin irritation occurs: get medical advice/attention.
If ingested:	Rinse mouth. Do NOT induce vomiting. Give a glass of water. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Seek medical attention if needed.
If inhaled:	Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.
Most important symptoms and effects, both acute and delayed	
Symptoms:	
Eyes:	Causes serious eye damage.
Skin:	Causes severe skin burns.
Ingested:	Harmful if swallowed.
Inhaled:	Not applicable.

Section 5: FIRE FIGHTING MEASURES

Hazard Type	Not flammable or combustible. Corrosive substance.
Hazards from combustion products	May evolve hydrogen gas in reactions with some metals and sulphur compounds on thermal decomposition.
Suitable Extinguishing media	Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

Precautions for firefighters and special protective clothing	Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.
HAZCHEM CODE	**2X**

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:
Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Neutralise with lime or soda ash. Collect and seal in properly labelled containers or drums for disposal. Wash area down with excess water. Recover the cleaning water for subsequent disposal.

Section 7: HANDLING AND STORAGE

Handling:	Read label before use. Keep only in original container. Do not breathe fumes, mist, vapours or spray. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective clothing.
Storage:	Store away from incompatible materials listed in Section 10. Store in a cool, dry, well ventilated place. Protect from freezing. Keep containers closed when not in use - check regularly for leaks. Keep out of reach of children. Store locked up. Store in corrosive resistant container with a resistant inner liner.

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

	TWA		STEL	
Substance	**ppm**	**mg/m³**	**ppm**	**mg/m³**

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:	Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Keep containers closed when not in use. If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Personal Protection Equipment:

Eyes:	Wear goggles with side shields. Avoid wearing contact lenses.
Skin/Hands:	Wear overalls, elbow-length impervious gloves, splash apron or equivalent chemical impervious outer garment, and rubber boots.
Respiratory:	If determined by a risk assessment an inhalation risk exists, wear a suitable mist respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.
General:	Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Viscous Liquid
Colour	Reddish/Brown
Odour	Odourless
Odour Threshold	Not available
pH	0.5 - 1
Boiling Point	Not available
Melting Point	Not available
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	1.45-1.6 @25°C
Water Solubility	Miscible with water.
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 under normal conditions.
Possibility of hazardous reactions	Not available
Conditions to Avoid	Avoid contact with foodstuffs.
Incompatible Materials	Reacts with strong alkalis.
Hazardous Decomposition Products	None known.

Section 11: TOXICOLOGICAL INFORMATION

Acute Effects:

Swallowed	Harmful if swallowed. Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract. Symptoms of swallowing large amounts of soluble iron compounds may be delayed several hours and can include epigastric pain, vomiting blood and circulatory failure.
Dermal	Not applicable
Inhalation	Breathing in mists or aerosols may produce respiratory irritation however this is not an expected route of exposure when used as directed.
Eye	Causes serious eye damage. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.

Skin	Causes severe skin burns and eye damage.

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

Section 12: ECOLOGICAL INFORMATION

This product is not hazardous to the environment, however avoid contaminating 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:	**Disposal Method:** Dispose of as a hazardous waste according to local regulations, complying with the relevant provisions of the Hazardous Substances (Disposal) Notice 2017.
Container Disposal:	Rinse containers thoroughly prior to re-use. Otherwise render unusable, and dispose of as hazardous waste.
Precautions or methods to avoid:	Do not allow to enter waterways.

Section 14: TRANSPORT INFORMATION

This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2012

Road, Rail, Sea and Air Transport

UN No	**3264**
Class - Primary	**8**
Packing Group	**II**
Proper Shipping Name	**CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Contains Ferric Sulphate)**
Marine Pollutant	**No**
Special Provisions	**If the product's individual container is below 1L/kg, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.**

Section 15: REGULATORY INFORMATION

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2020	
EPA Approval Code:	Water Treatment Chemicals (Corrosive) – HSR002681
GHS Classification:	Acute oral toxicity Cat. 4 Corrosive to metals Cat. 1 Skin corrosion Cat. 1B Serious eye damage Cat. 1

HSW (HS) Regulations 2017	Trigger Quantity
Signage Trigger Quantities (Schedule 3)	250L/kg
Emergency Response Plan (Schedule 5)	1000kg
Secondary Containment (Schedule 5)	1000kg
Tracking (Schedule 26)	Not required
Certified Handlers	Not required
Location Certificate	250kg/L
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 2020 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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