SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER:

Product Name: Tui Moss Control – Sulphate of Iron

Recommended Use: For the control of moss on home lawns.

Company: Tui Products Ltd
Address: Truman Lane, Mount Maunganui
New Zealand
Telephone Number: +64 7 5752160

Emergency Telephone Numbers: 0800 CHEMCALL (0800 243 622) 24 hours
0800 POISON (0800 764 766) National Poisons Centre
111 – New Zealand Fire Service

Date of Preparation: Jan 2016

2. HAZARDS IDENTIFICATION:

Dangerous Goods: Not classified as a Dangerous Good according to NZS 5433:2012 Transport of Dangerous Goods on Land.

Hazardous Substance (HSNO): Classified as hazardous according to criteria in the HS (Minimum Degree of Hazard) Regulations 2001.

HSNO Hazard Classifications: 6.1D, 6.3A, 6.4A, 9.1D, 9.3C.

Signal Word: Warning

Hazard Statements:
Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
Toxic to aquatic life.
Harmful to terrestrial vertebrates.

Prevention Statements:
Keep out of reach of children.
Read label before use.
Read Safety Data Sheet before use.
Wash hands, arms and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves.
Wear eye/face protection.

Response Statements:
If medical advice is needed, have product container or label at hand.
IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
Rinse Mouth.
Do NOT induce vomiting.
IF ON SKIN: Wash with plenty of soap and water. Specific treatment and measures (see First Aid Measures on this safety data sheet). If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before re-use.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.

3. COMPOSITION/INFORMATION ON INGREDIENTS:

COMPONENT	CONCENTRATION	CAS NUMBER
Ferrous Sulphate Heptahydrate	90 - 100%	7782-63-0

4. FIRST AID MEASURES:

For advice, contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor/physician.

Inhalation:	Remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.
Ingestion:	If swallowed, seek immediate medical attention. Rinse mouth. Do NOT induce vomiting.
Eye Contact:	Immediately flush with cold water. Continue for at least 15 minutes. Remove contact lenses if present and easy to do so. Seek medical advice/attention.
Skin Contact:	Wash the skin thoroughly with plenty of water and soap whilst removing contaminated clothing. Wash clothing and shoes before re-use. If irritation occurs seek medical advice.
Notes to Physician:	Treat symptomatically.

5. FIRE FIGHTING MEASURES:

Suitable Extinguishing Media:	Non-flammable, however, if material is involved in a fire use extinguishing media appropriate for surrounding fire.
Precautions for fire fighters and special protective clothing:	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots and gloves). 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. Do NOT allow firefighting water to reach waterways, drains or sewers. Store firefighting water for treatment.
Hazards from combustion products:	Non-combustible solid. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion. Incompatible with oxidizing materials, Alkalis, soluble carbonates and sources of ignition. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Burning may produce Sulphur oxides.

6. ACCIDENTAL RELEASE MEASURES:

Emergency Procedures:	Evacuate all unnecessary personnel. Personnel involved in the clean-up should wear full protective clothing as listed in section 8. Eliminate all sources of ignition. Increase ventilation. Avoid generating dust. Stop leak if safe to do so. Isolate the danger area. Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management
Personal Precautions, Protective Equipment and Emergency Procedures:	Refer to SDS section 7 for handling and precautionary measures. Refer to SDS section 8 for additional information and personal protection equipment to prevent contamination of skin, eyes and personal clothing.
Environmental Precautions:	Contain – Prevent product from entering into soil, ditches, sewers, waterways and/or groundwater.
Methods and Materials for Containment and Clean up:	Contain – Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Transfer to a suitable, labelled container and dispose of promptly as hazardous waste. Place under an inert atmosphere.

7. HANDLING & STORAGE:

Precautions for safe handling and storage:

Handling:	Keep out of reach of children. Avoid unintended release to the environment. Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash hands, face and exposed skin thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Avoid generating dust, do not inhale product dust/fumes. Remove contaminated clothing and wash before reuse. Do not ingest or inhale. Handle under an inert atmosphere. Store protected from air.
Storage:	Store in a cool, dry, well-ventilated area out of direct sunlight. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Store away from children, animals, food, feedstuffs, drink containers, fertilisers and seeds. Protect against physical damage. Store away from incompatible materials as listed in section 10.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Occupational Exposure Limits:	No value assigned for this specific material by EPA or NZ Dept. of Labour Health & Safety. However, Workplace Exposure Standard(s) for particulates not otherwise classified: Inhalable dust: WES-TWA 10 mg/m^3 Respirable dust: WES-TWA 3 mg/m^3 Workplace Exposure Standard(s) for constituent(s): Iron salts, soluble, as Fe: WES-TWA 1 mg/ m^3 As published in Workplace Exposure Standards and Biological Exposure Indices – July 2011, 6th edition.
Engineering Controls:	Handle in a well-ventilated area; ensure ventilation is adequate to maintain air concentrations below exposure standards. If dust is generated use local extraction to control. Avoid inhalation of dust. Keep containers closed when not in use.
Personal Protective Equipment:	Avoid contact with eyes, skin and breathing in dust **Respiratory Protection:** Use with adequate ventilation, atmospheric levels should be maintained below the exposure guidelines. Wear an approved respirator where dusts/vapours are generated and engineering controls are inadequate (AS/NZS 1715/1716). **Skin protection:** Wear protective gloves (AS/NZS 2161). Wear long-sleeved protective clothing and safety footwear (AS/NZS 3765/2210). Wash hands, face and exposed skin thoroughly after use and before smoking, eating, drinking or using the toilet. **Eye protection:** Avoid eye contact when handling. Use chemical safety goggles and/or a full face shield (AS/NZS 1336/1337).

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:	Solid pale green crystalline powder.
Odour:	Odourless.
pH:	3.0 – 5.0.
Solubility in water:	Soluble in water
Bulk Density (kg/L):	1.89.
Flash point (°C):	Not available.
Boiling/Melting Point (°C):	>300°C (Decomposes).

10. STABILITY and REACTIVITY:

Chemical Stability:	Product is stable under normal conditions of use, storage and temperature. Loses water in dry air and oxidizes upon exposure to moisture, forming a brown coating of extremely corrosive basic ferric sulphate. Reacts in moist air to form ferric sulphate.
Conditions to avoid:	Avoid excessive heat, generating dust, direct sunlight, moisture, static discharges and high temperatures.
Incompatible materials:	Incompatible with oxidizing materials, Alkalis, soluble carbonates, and sources of ignition.
Hazardous decomposition products:	During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Burning may produce sulphur oxides.
Hazardous Reactions:	Hazardous Polymerization has not been reported. Loses water in dry air and oxidizes upon exposure to moisture, forming a brown coating of extremely corrosive basic ferric sulphate. Reacts in moist air to form ferric sulphate.

11. TOXICOLOGICAL INFORMATION:

Potential Health Effects: This section includes possible adverse effects, which could occur if the product is not handled in the recommended manner.

Eye Contact:	Causes serious eye irritation. Causes irritation to eyes with redness and pain.
Skin:	Causes irritation to skin. Symptoms include redness, itching and pain.
Ingestion:	Harmful if swallowed. Affects the liver. Swallowing can result in nausea, vomiting, diarrhoea, and gastrointestinal irritation. Symptoms of swallowing large amounts of soluble iron compounds may be delayed several hours and can include epigastric pain, vomiting blood and circulatory failure.
Inhalation:	Causes irritation to the respiratory tract. May be harmful if inhaled.
Toxicity Data:	No toxicological information available for this product.

12. ECOLOGICAL INFORMATION:

Ecotoxicity: Avoid unintended release to the environment. Avoid contamination of sewers, drains or waterways.
Toxic to aquatic life.
Harmful to terrestrial vertebrates.

13. DISPOSAL CONSIDERATIONS:

Disposal methods: Dispose of this product by using in accordance with the product label directions.
Do not dispose of this product; down drains or sewers.
Collect any unused product and dispose of in an approved landfill.
Packaging disposal – Crush packaging and dispose of in a suitable approved landfill.
If wastes and/or packaging cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local area regulatory authorities following all applicable regional, national and local laws and regulations. Some local authorities offer hazardous waste collection, contact your local council for details.

14. TRANSPORT INFORMATION:

Not classified as a Dangerous Good for Transport.

Maximum volume permitted to be transported in a passenger service vehicle: 3 kg per bag.

15. REGULATORY INFORMATION:

EPA New Zealand Approval Code: HSR003427.

16. OTHER INFORMATION:

Date of preparation of SDS: Jan 2016.

Abbreviations in SDS:
EPA: The Environmental Protection Authority of New Zealand.
LD_{50}: Lethal Dose-50%. The doses of a chemical that will kill 50% of the test animals receiving it.
pH: A measurement of how acidic or alkaline a material is using a scale of 1 -14. pH 1 is strongly acidic, pH 14 is strongly alkaline.
WES: Work place exposure standard set by EPA or NZ Dept. of Labour Health & Safety.

DISCLAIMER:
This product must be used strictly as directed. To the maximum extent permitted by law Tui Products Limited, its officers, employees, agents, distributors and retailers shall have no liability to any purchaser or user of this product, or any other person, for any loss, damage or injury (including personal injury) arising out of the use or storage of this product otherwise than in accordance with the directions for use and storage.

---------- End of SDS ----------