



MATERIAL SAFETY DATA SHEET

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product trade name: Osmoform NXT
Synonyms: 19+2.2+11+TE
Recommended use: Fertilizer.
Proper shipping name: Not regulated
Supplier:

- Everris Australia Pty Ltd, 211/33 Lexington Drive, Bella Vista, NSW 2153, Australia. Tel: +61(2) 8801 3300
- Everris Australia Pty Ltd, PO Box 125, Whitford, Auckland 2149 L4, Grant Thornton House, 152 Fanshawe Street, Auckland, New Zealand Tel: +64 (0)274 908438

Australian Business Number: 31 003 123 162
Emergency telephone number: Australia: (02) 801 44558
New Zealand: (09) 992 91483

2. HAZARDS IDENTIFICATION

Australia:

Australia Hazardous Statement:

Hazardous according to health criteria of NOHSC Australia

Australia Road and Rail Transport:

Classified as Not Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road or Rail.

New Zealand:

New Zealand Hazardous Statement:

Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

New Zealand Standard NZS:

Not classified as Dangerous Goods for transport, according to the New Zealand Standard NZS 5433:1999 Transport of Dangerous Goods on Land.

Poisons schedule No. (Aust)/Toxic Substance (NZ)

No information available

R -phrase(s)

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS-No	Weight %	Classification
Iron sulphate, FeSO ₄ +1H ₂ O	7720-78-7	< 10%	Xn;R22 R36/38
Manganese sulphate, MnSO ₄	7785-87-7	< 1%	N;R51/53 Xn;R48/20/22
Copper sulphate anhydrous, CuSO ₄ +0H ₂ O	7758-98-7	< 1%	N;R50/53 Xi;R36/38 Xn;R22
Zinc sulphate mono hydrate, ZnSO ₄ +1H ₂ O	7446-19-7	< 1%	N;R50/53 Xn;R22-41

97.3% of the other ingredients are determined not be hazardous.

For the full text of the R phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

General advice:	Possible symptoms are coughing and/or dyspnoea. If symptoms persist, call a physician.
Ingestion:	If conscious, drink plenty of water. Do not induce vomiting. Rinse mouth. Consult a physician if necessary.
Inhalation:	Dusty conditions are unlikely if product is used as intended. However, if prolonged inhalation of dust occurs, remove casualty to fresh air. If symptoms persist, call a physician.
Skin contact:	If a person feels unwell or symptoms of skin irritation appear, consult a physician. Rinse with plenty of water.
Eye contact:	Rinse eyes with water as a precaution. If eye irritation persists, consult a specialist.
Notes to physician:	Artificial respiration and/or oxygen may be necessary

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Water spray, carbon dioxide, dry chemical, chemical foam. Coordinate fire extinguishing measures to fire in surrounding area.

Unsuitable extinguishing media:

No information available

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases:

Thermal decomposition can lead to release of irritating gases and vapours.

Special protective equipment for firefighters:

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Avoid dust formation. Sweep-up to prevent slipping hazard.

Environmental precautions:

Prevent product from entering drains. Do not contaminate surface water.

Methods for cleaning up:

Shovel or sweep up.

7. HANDLING AND STORAGE

Precautions for safe handling**Technical measures/precautions:**

Avoid dust formation.

Safe handling advice:

Keep away from flammable material. When using do not eat or drink.

Conditions for Safe Storage**Technical measures/storage conditions:**

Keep away from heat and sources of ignition. Keep away from food, drink and animal feeding stuffs. For quality reasons: Keep out of reach of direct sunlight, store under dry conditions, partly used bags should be closed well. Keep at temperatures between 0 °C and 40 °C.

Incompatible products:

Oxidising and spontaneously flammable products

Specific use(s):

Fertilizer

Packaging material:

Plastic bags Bags or Bulk

Poison Schedule Notes:

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 1126 or New Zealand 03 474 7000.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits:

Ingredients	Australia TWA	Australia STEL	Australian Carcinogens
Iron sulphate, FeSO ₄ +1H ₂ O	1 mg/m ³ TWA	N.A.	Not listed
Manganese sulphate, MnSO ₄	1 mg/m ³ TWA	N.A.	Not listed
Copper sulphate anhydrous, CuSO ₄ +0H ₂ O	N.A.	N.A.	Not listed
Zinc sulphate mono hydrate, ZnSO ₄ +1H ₂ O	N.A.	N.A.	Not listed

TWA - The Time-Weighted Average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life. According to current knowledge this concentration should neither impair the health or, not cause undue discomfort to, nearly all workers.
 STEL (Short Term Exposure Limit) – the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health or, not cause undue discomfort to, nearly all workers

Engineering measures to reduce exposure:	Ensure adequate ventilation.
Personal Protective Equipment	
Respiratory protection:	Not applicable
Hand protection:	PVC or other plastic material gloves
Skin and body protection:	Not applicable
Eye/face protection	Safety glasses
General hygiene considerations:	Avoid contact with skin, eyes and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Physical State:	Solid
Color:	Brown
Odor:	No information available

Important Health Safety and Environmental Information

Boiling point/range:	Not applicable
Melting point/range:	Not applicable
Solubility:	Coating not soluble, release nutrients through coating
Vapour pressure	Not applicable
Vapour density	Not applicable
Explosive properties:	Doesn't present explosion hazard
Flammability (solid, gas):	Non-flammable

Other information

pH:	No information available
Bulk density:	+/- 850 kg/m ³

10. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Keep away from open flames, hot surfaces and sources of ignition.
Hazardous decomposition products	No decomposition if stored normally. Thermal decomposition can lead to release of irritating gases and vapours.

Hazardous reactions Not determined.

11. TOXICOLOGICAL INFORMATION

Component information

Iron sulphate, FeSO₄+1H₂O

LD50/oral/rat = 1389 mg/kg

Manganese sulphate, MnSO₄

LD50/oral/rat = 9 g/kg

Copper sulphate anhydrous, CuSO₄+0H₂O

LD50/oral/rat = 960 mg/kg

Zinc sulphate mono hydrate, ZnSO₄+1H₂O

LD50/oral/rat = 2949 mg/kg

Product information

Local effects

Skin effects:

May cause skin irritation in susceptible persons

Eye effects:

May cause eye irritation with susceptible persons

Inhalation:

May cause sensitization by inhalation

Ingestion:

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

12. ECOLOGICAL INFORMATION

Product information

Aquatic toxicity:

Harmful to aquatic organisms.

Ecotoxicity

May cause long-term adverse effects in the aquatic environment

Persistence and degradability

No persistent or cumulative effects were observed

Bioaccumulative potential

Does not bioaccumulate

Mobility in soil

No information available

Component information

Iron sulphate, FeSO₄+1H₂O

Ecotoxicity effects

EC50/48h/daphnia = >100mg/l

LC50/96h/rainbow trout = >72.5mg/l (6d)

EC50/72h/algae = 22mg/l

Manganese sulphate, MnSO4

Ecotoxicity effects

EC50/48h/daphnia => 100 mg/l

Copper sulphate anhydrous, CuSO4+0H2O

Ecotoxicity effects

EC50/48h/daphnia =0.8 mg/l

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods:

Use up product completely. Packaging material is industrial waste.

Contaminated packaging:

Empty containers can be landfilled, when in compliance with the local regulations

14. TRANSPORT INFORMATION

UN-No:

Not regulated.

ADR/RID

Classified as Not Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road or Rail.

IMDG/IMO

Classified as Not Dangerous Goods for the purpose of transport by sea.

ICAO

Classified as Not Dangerous Goods for the purpose of transport by air.

General Information**Storage and Transport:**

Not classified as dangerous.

15. REGULATORY INFORMATION

Hazardous according to health criteria of NOHSC Australia

International Inventories

Australian Inventory of Chemical Substances
Poisons schedule No. (Aust)/Toxic Substance (NZ)

This product is not classified by AICS
No information available

16. OTHER INFORMATION

Text of R Phrases mentioned in Section 3

R22 - Harmful if swallowed.

16. OTHER INFORMATION

R36/38 - Irritating to eyes and skin.

Reason for revision: *** Indicates changes since the last revision. This version replaces all previous versions

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Prepared by: Regulatory Affairs Department.

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End of Safety Data Sheet