

Safety Data Sheet

Issue Date: 05-Jun-2014

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Version: 1

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Code 87530225AU
Product Name: Osmocote Start 11-4.8-14.1 +1.2Mg +TE

Proper shipping name: Not regulated

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use: Fertilizer
Restricted to professional users
Uses Advised Against: Consumer use [SU 21].

1.3. Details of the supplier of the safety data sheet

Manufacturer

Everris Australia Pty Ltd, 211/33 Lexington Drive, Bella Vista, NSW 2153, Australia. Tel: +61(2) 8801 3300

For further information, please contact

INFO-MSDS@EVERRIS.COM

1.4. Emergency telephone number

Australia: (02) 8014 4558
New Zealand: (09) 9929 1483

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Mixture

Regulation (EC) No 1272/2008

Serious Eye Damage or Eye Irritation

Category 1 - (H318)

2.2. Label elements

Product Identifier:



Signal Word:

Danger

Hazard Statements:

H318 - Causes serious eye damage
Contains Ammonium Nitrate; NH_4NO_3 , Potassium sulphate; K_2SO_4

Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear eye protection/ face protection
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor/physician

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Ingredients	EC-No.	CAS-No	Weight %	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Ammonium Nitrate; NH_4NO_3	229-347-8	6484-52-2	10 - 30%	Eye Irrit. 2 (H319) Ox. Sol. 3 (H272)	01-2119490981-27
Potassium sulphate; K_2SO_4	231-915-5	7778-80-5	10 - 30%	Eye Dam. 1 (H318)	01-2119489441-34
Copper-EDTA; Cu-EDTA	237-864-5	14025-15-1	0.1 - 1%	Eye Irrit. 2 (H319) Acute Tox. 4 (H302)	01-2119963944-23
Iron sulphate; $\text{FeSO}_4 \cdot \text{H}_2\text{O}$	231-753-5	7720-78-7	0.1 - 1%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H302)	01-2119513203-57
Manganese sulphate; $\text{MnSO}_4 \cdot \text{H}_2\text{O}$	232-08-99	7785-87-7	0.1 - 1%	STOT RE 2 (H373) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)	01-2119456624-35
Boric Acid; H_3BO_3	233-139-2	10043-35-3	< 0.1%	Repr. 1B (H360FD)	01-2119486683-25
Zinc sulphate mono hydrate; $\text{ZnSO}_4 \cdot \text{H}_2\text{O}$	231-793-3	7446-19-7	< 0.1%	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	01-2119474684-27

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice:	First aid measures should be executed by trained personnel only.
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.
Eye Contact:	Rinse eyes with water as a precaution. If eye irritation persists, consult a specialist.
Ingestion:	If conscious, drink plenty of water. Do NOT induce vomiting. Rinse mouth. Consult a physician if necessary.
Protection of First-Aiders:	Low hazard for usual industrial or commercial handling.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms:	None under normal processing
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4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician:	None under normal processing.
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Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media**Suitable extinguishing media:**

Coordinate fire extinguishing measures to fire in surrounding area. Use dry chemical, CO₂, water spray or "alcohol" foam.

Unsuitable extinguishing media:

High volume water jet.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

5.3. Advice for firefighters

Coordinate fire extinguishing measures to fire in surrounding area.

Section 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Personal Precautions: Avoid dust formation. Sweep-up to prevent slipping hazard.

For Emergency Responders: Use personal protection recommended in Section 8.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Methods for Containment: Prevent further leakage or spillage if safe to do so.

Methods for Cleanup: Shovel or sweep up. Use up product completely. Packaging material is industrial waste.

6.4. Reference to other sections

§ 8, 12, 13.

Section 7: HANDLING AND STORAGE**7.1. Precautions for safe handling**

General hygiene considerations:

Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

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.

LGK (Germany)

Packaging Materials:

13 (S)

Bags or Bulk.

7.3. Specific end use(s)

Specific use(s)

Fertilizer; Read and follow label instructions; www.everris.com

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters**

Ammonium Nitrate; NH₄NO₃

Australia TWA	N.A.
Czech Republic OEL	10.0 mg/m ³ TWA
<i>Potassium sulphate; K₂SO₄</i>	
Bulgaria - Occupational Exposure Limits - TWAs	10.0 mg/m ³ TWA
Latvia - Occupational Exposure Limits - TWAs	10 mg/m ³ TWA
<i>Copper-EDTA; Cu-EDTA</i>	
Austria	STEL 4 mg/m ³ STEL 0.4 mg/m ³ TWA: 1 mg/m ³ TWA: 0.1 mg/m ³
Australia TWA	N.A.
Finland	TWA: 1 mg/m ³
<i>Iron sulphate; FeSO₄·1H₂O</i>	
Belgium - 8 Hr TWA	1 mg/m ³
Denmark	TWA: 1 mg/m ³
Finland	TWA: 1 mg/m ³
Ireland	TWA: 1 mg/m ³

	STEL: 2 mg/m ³
Netherlands - OEL - MACs:	1 mg/m ³
Norway	TWA: 1 mg/m ³ STEL: 1 mg/m ³
Portugal	TWA: 1 mg/m ³
Spain OEL - Time Weighted Average (TWA):	TWA: 1 mg/m ³
Switzerland	TWA: 1 mg/m ³
UK oes/mel:	TWA: 1 mg/m ³
<i>Manganese sulphate: MnSO₄·1H₂O</i>	
Austria	STEL 2 mg/m ³ TWA: 0.5 mg/m ³
Australia TWA	0.2 mg/m ³
Belgium - 8 Hr TWA	0.2 mg/m ³
Denmark	TWA: 0.2 mg/m ³
Finland	TWA: 0.02 mg/m ³ TWA: 0.2 mg/m ³
German mak	TWA: 0.2 mg/m ³ TWA: 0.02 mg/m ³ Ceiling / Peak: 1.6 mg/m ³ Ceiling / Peak: 0.16 mg/m ³
Ireland	TWA: 0.2 mg/m ³ STEL: 0.6 mg/m ³
Netherlands - OEL - MACs:	1 mg/m ³
Norway	TWA: 1 mg/m ³ TWA: 0.1 mg/m ³ STEL: 1 ppm STEL: 0.1 mg/m ³
Poland	TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³
Portugal	TWA: 0.2 mg/m ³
Spain OEL - Time Weighted Average (TWA):	TWA: 0.2 mg/m ³
Sweden - OEL - 8 Hour	0.2 mg/m ³ LLV (totalt)
Switzerland	TWA: 0.5 mg/m ³
UK oes/mel:	TWA: 0.5 mg/m ³
<i>Boric Acid: H₃BO₃</i>	
Australia TWA	12 mg/m ³
Belgium - 8 Hr TWA	2 mg/m ³ TWA borate
Bulgaria - Occupational Exposure Limits - TWAs	5.0 mg/m ³ TWA (as B, listed under Boron and its inorganic compounds)
German mak	TWA: 10 mg/m ³ Ceiling / Peak: 10 mg/m ³ TWA: 0.5 mg/m ³
Latvia - Occupational Exposure Limits - TWAs	10 mg/m ³ TWA
Portugal	STEL: 6 mg/m ³ TWA: 2 mg/m ³
Spain OEL - Time Weighted Average (TWA):	STEL: 6 mg/m ³ TWA: 2 mg/m ³
Switzerland	STEL: 10 mg/m ³ TWA: 10 mg/m ³
<i>Zinc sulphate mono hydrate: ZnSO₄·1H₂O</i>	
German mak	TWA: 0.1 mg/m ³ TWA: 2 mg/m ³ Ceiling / Peak: 0.4 mg/m ³ Ceiling / Peak: 4 mg/m ³

Derived No Effect Level (DNEL)

No data available

Predicted No Effect Concentration (PNEC)

No data available.

8.2. Exposure controls**Engineering Measures to Reduce Exposure:**

Use only in area provided with appropriate exhaust ventilation.

Personal protective equipment

Eye/Face Protection:

Tightly fitting safety goggles

Hand protection:	PVC or other plastic material gloves.
Respiratory Protection:	In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.
Skin and Body Protection:	Wear normal, light working clothing
Hygiene Measures:	Follow good housekeeping practices. When using, do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs.

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State:	Solid
Appearance:	Granules
Color:	brown.
Odor:	Not significant
Bulk density:	846 - 996 kg/m ³
pH:	no data available
Melting Point/Freezing Point:	no data available
Boiling Point/Range:	Solid, Not Applicable
Flash Point:	Solid, Not Applicable
Evaporation Rate:	Solid, Not Applicable
Flammability (solid, gas):	Non-flammable
Vapor Pressure:	Solid, Not Applicable
Vapor Density:	Solid, Not Applicable
Specific Gravity:	no data available
Water Solubility:	Soluble in water
Solubility(ies)	no data available
Partition Coefficient:	Solid, Not Applicable
Autoignition Temperature:	Not Applicable
Decomposition Temperature:	no data available
Explosive Properties:	Doesn't present explosion hazard. Based on data of ingredients.

9.2. Other information

Not applicable

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Not reactive.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous Decomposition Products:

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Possibility of Hazardous Reactions:

None under normal processing.

10.4. Conditions to avoid

For quality reasons: Keep out of reach of direct sunlight, store under dry conditions, partly used bags should be closed well.

10.5. Incompatible materials

Strong oxidizing agents. Acids and bases. Strong reducing agents. Flammable materials. Keep away from catalysts like derivatives of hexavalent chromium and metal halides. Keep away from flammable products (fuels) like charcoal, wood, flour, soot etc.

10.6. Hazardous decomposition products

None under normal processing.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute Toxicity

Product Information:

Inhalation:	May cause irritation of respiratory tract.
Eye Contact:	Causes serious eye damage.
Skin Contact:	May cause irritation.
Ingestion:	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Unknown Acute Toxicity:	0% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (oral): 29,024.00 mg/kg

Skin Corrosion or Irritation	See also section 3.
Serious Eye Damage or Eye Irritation	See also section 3.
Sensitization	See also section 3.
Mutagenic effects	See also section 3.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Reproductive Toxicity

Ingredients	EU - GHS - SV - CLP (1272/2008) - Reproductive Toxicity
Boric Acid; H ₃ BO ₃	Reproductive Toxicity - Repr. 1B: H360FD May damage fertility. May damage the unborn child. (C >= 5.5 %)

Teratogenicity	No known effects under normal use conditions.
STOT - Single Exposure-Category 3 (H335)	No known effects under normal use conditions.
STOT - Repeated Exposure	None under normal use conditions.
Aspiration Hazard	None under normal use.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

8% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Ingredients	Algae/aquatic plants	Fish	Crustacea
Ammonium Nitrate; NH ₄ NO ₃		65 - 85: 48 h Cyprinus carpio mg/L LC50 semi-static	
Potassium sulphate; K ₂ SO ₄	2900: 72 h Desmodium subspicatus mg/L EC50	653: 96 h Lepomis macrochirus mg/L LC50 3550: 96 h Lepomis macrochirus mg/L LC50 static 510 - 880: 96 h Pimephales promelas mg/L LC50 static	890: 48 h Daphnia magna mg/L EC50
Iron sulphate; FeSO ₄ +1H ₂ O		925: 96 h Poecilia reticulata mg/L LC50 static 0.56: 96 h Cyprinus carpio mg/L LC50 semi-static	152: 48 h Daphnia magna mg/L EC50 6.15 - 9.26: 48 h Daphnia magna mg/L EC50 Static
Boric Acid; H ₃ BO ₃		1020: 72 h Carassius auratus mg/L LC50 flow-through	115 - 153: 48 h Daphnia magna mg/L EC50

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

Component	LOGPOW
Ammonium Nitrate; NH ₄ NO ₃ 6484-52-2 (10 - 30%)	-3.1
Boric Acid; H ₃ BO ₃ 10043-35-3 (< 0.1%)	-0.757

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Disposal of Wastes:

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging:

Do not re-use empty containers. Dispose of as unused product.

Other Information:

Use up product completely. Packaging material is industrial waste.

Section 14: TRANSPORT INFORMATION

IMO / IMDG

14.1

UN-No:

Not regulated

14.2

Proper shipping name:

Not regulated

14.3

Hazard Class:

Not regulated

14.4

Packing group:

Not regulated

14.5

Marine Pollutant:

No information available

14.6

Special Provisions

None

14.7

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not regulated

ADR/RID

14.1

UN-No:

Not regulated

14.2

Proper shipping name:

Not regulated

14.3

Hazard Class:

Not regulated

14.4

Packing group:

Not regulated

14.5

Environmental Hazard

Not regulated

14.6

Special Provisions

None

IATA

14.1

UN-No:

Not regulated

14.2

Proper shipping name:

Not regulated

14.3

Hazard Class:

Not regulated

14.4

Packing group:

Not regulated

14.5

Environmental Hazard

Not regulated

14.6

Special Provisions

None

Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH:

Component	EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances
Ammonium Nitrate; NH_4NO_3 6484-52-2 (10 - 30%)	Use restricted. See item 58. (Conditions of restrictions 27 June 2010)
Boric Acid; H_3BO_3 10043-35-3 (< 0.1%)	Use restricted. See item 30.

No data available

National regulations

Belgium

Component	Belgium - Major Accidents - Qualifying Quantities for Safety Reporting	Belgium - Major Accidents - Qualifying Quantities for Accident Prevention
Ammonium Nitrate; NH_4NO_3 6484-52-2 (10 - 30%)	2500 tonne (Note 3, applies to Ammonium nitrate in which the Nitrogen content due to Ammonium nitrate is >28% by weight containing ≤0.2 % combustible material, >24.5% and <28% by weight containing ≤0.4% combustible material and to aqueous Ammonium nitrate solutions in which the concentration of Ammonium nitrate is >80% by weight)	350 tonne (Note 3, applies to Ammonium nitrate in which the Nitrogen content due to Ammonium nitrate is >28% by weight containing ≤0.2 % combustible material, >24.5% and <28% by weight containing ≤0.4% combustible material and to aqueous Ammonium nitrate solutions in which the concentration of Ammonium nitrate is >80% by weight)

Denmark

Danish Sikkerhedsgruppe

Not regulated

France

ICPE

Classified installation: article 1331 (Type III)

Germany

Gefahrstoffverordnung (Germany) TRGS 511

LGK (Germany)

Water Endangering Class (WGK):

C III

13 (S)

1 (Everris classification)

Component	German WGK Section
Ammonium Nitrate; NH_4NO_3 6484-52-2 (10 - 30%)	class 1
Potassium sulphate; K_2SO_4 7778-80-5 (10 - 30%)	class 1
Copper-EDTA; Cu-EDTA 14025-15-1 (0.1 - 1%)	class 2
Iron sulphate; $\text{FeSO}_4 \cdot \text{H}_2\text{O}$ 7720-78-7 (0.1 - 1%)	class 1
Manganese sulphate; $\text{MnSO}_4 \cdot \text{H}_2\text{O}$ 7785-87-7 (0.1 - 1%)	class 1
Boric Acid; H_3BO_3 10043-35-3 (< 0.1%)	class 1
Zinc sulphate mono hydrate; $\text{ZnSO}_4 \cdot \text{H}_2\text{O}$ 7446-19-7 (< 0.1%)	class 3

European Union

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

15.2 Chemical safety assessment

Not required. Substance(s) usage is covered according to Reach regulation 1907/2006.

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed
H319 - Causes serious eye irritation
H272 - May intensify fire; oxidizer
H318 - Causes serious eye damage
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H315 - Causes skin irritation
H373 - May cause damage to the kidneys/ liver/ eyes/ brain/ respiratory system/ central nervous system through prolonged or repeated exposure in contact with skin
H411 - Toxic to aquatic life with long lasting effects
H360FD - May damage fertility. May damage the unborn child

Key or legend to abbreviations and acronyms used in the safety data sheet

RID: Regulations Concerning the International Transport of Dangerous Goods by Rail
ICAO: International Civil Aviation Organization
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PNEC: Predicted No Effect Concentration
DNEL: Derived No-Effect Level
Reach: Registration, Evaluation, authorization of Chemicals
CLP: EU-GHS; Classification, Labelling and Packaging
OEL: Occupational Exposure Limit
TWA: Time Weighted Average
ATE: Acute Toxicity Estimate
EUH statement: CLP (EU) specific hazard statement.

Classification procedure:

- Calculation method
- Expert judgment and weight of evidence determination

Key literature references and sources for data

According to EC Regulation 1907/2006 (Reach), Regulation EU No. 2015/830. Regulation (EC) No 1272/2008.

Prepared by:

Regulatory Affairs Department (INFO-MSDS@EVERRIS.COM)

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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End of Safety Data Sheet