Safety Data Sheet

Issue Date: 03-Feb-2014 Revision Date: 24-Jun-2016 Version: 1

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

1.1. Product identifier

Product Code 88430225AU

Product Name: Osmocote Exact Standard 12-14M

Synonyms: 15-3.9-9.1+1.2Mg+TE

Proper shipping name: AMMONIUM NITRATE BASED FERTILIZER

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

Chronic aquatic toxicity Category 3 - (H412)

2.2. Label elements

Product Identifier:

Signal Word:

None

Hazard Statements:

H412 - Harmful to aquatic life with long lasting effects

Other hazards (UN-GHS)

Causes mild skin irritation. Harmful to aquatic life.

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 ₄ NO ₃	229-347-8	6484-52-2	30 - 60%	Eye Irrit. 2 (H319) Ox. Sol. 3 (H272)	01-2119490981-27
Calcium sulphate dihydrate; CaSO ₄₊ 2H ₂ O	231-900-3	10101-41-4	1 - 5%	Not classified	01-2119444918-26

Iron sulphate; FeSO ₄ +1H ₂ O	231-753-5	7720-78-7	1 - 5%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H302)	01-2119513203-57
Iron EDTA; Fe-EDTA	239-802-2	15708-41-5	0.1 - 1%	Not classified	01-2119496228-27
Copper sulphate anh; CuSO ₄	231-847-6	7758-98-7	0.1 - 1%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	01-2119520566-40
Manganese sulphate; MnSO ₄ +1H ₂ 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
Sodium borate; Na ₂ B ₄ O ₇	215-540-4	1330-43-4	0.1 - 1%	Eye Irrit. 2 (H319) Repr. 1B (H360FD)	01-2119490790-32
Zinc sulphate mono hydrate; ZnSO₄+1H₂O	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
Sodium molybdate; Na ₂ MoO ₄ +2H ₂ O	231-551-7	7631-95-0	< 0.1%	Not classified	01-2119489495-21

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.

Revision Date: 24-Jun-2016

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

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician: None under normal processing.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Unsuitable extinguishing media:

High volume water jet. Dry powder. Sand. Foam.

5.2. Special hazards arising from the substance or mixture

In case of fire, the product will smoulder even without the presence of external oxygen. In these conditions the product will show self sustaining decomposition. The best method to extinguish the fire is to cool the decomposition front with water. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Hazardous Combustion Products:

Carbon oxides. Phosphorus oxides. Ammonia. Nitrogen oxides (NOx).

5.3. Advice for firefighters

Coordinate fire extinguishing measures to fire in surrounding area. In the event of fire and/or explosion do not breathe fumes. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray to cool fire exposed surfaces.

Hazchem code:

1Z

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. 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.

Revision Date: 24-Jun-2016

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) 5.1C

Packaging Materials: 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/m³ TWA	
Calcium sulphate dihydrate; CaSO4+2H2O		
Belgium - 8 Hr TWA	10 mg/m³ TWA	
German mak	TWA: 1.5 mg/m ³	
	TWA: 4 mg/m ³	
Portugal	TWA: 10 mg/m ³	
Spain OEL - Time Weighted Average (TWA):	TWA: 10 mg/m ³	

Switzerland	TWA: 3 mg/m ³
Iron sulphate; FeSO ₄ +1H ₂ O	
Belgium - 8 Hr TWA	1 mg/m³
Denmark	TWA: 1 mg/m ³
Finland	TWA: 1 mg/m ³
Ireland	TWA: 1 mg/m ³
	STEL: 2 mg/m³
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
Iron EDTA; Fe-EDTA	
Denmark	TWA: 1 mg/m ³
Finland	TWA: 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
Copper sulphate anh; CuSO ₄	
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
German mak	TWA: 0.01 mg/m ³
	Ceiling / Peak: 0.02 mg/m ³
Netherlands - OEL - MACs:	0.1 mg/kg TWA
Poland	TWA: 0.2 mg/m ³
Russia TWA	0.5 mg/m³ TWA 1200
Switzerland	STEL: 0.2 mg/m ³
	TWA: 0.1 mg/m ³
Manganese sulphate; MnSO4+1H2O	
Manganese sulphate; MnSO ₄ +1H ₂ O Austria	STEL 2 mg/m ³
Austria	STEL 2 mg/m³ TWA: 0.5 mg/m³
Austria Australia TWA	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³
Austria Australia TWA Belgium - 8 Hr TWA	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³
Austria Australia TWA Belgium - 8 Hr TWA Denmark	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³
Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.2 mg/m³
Austria Australia TWA Belgium - 8 Hr TWA Denmark	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³
Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³
Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ Ceiling / Peak: 1.6 mg/m³
Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³
Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ Ceiling / Peak: 1.6 mg/m³
Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³
Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.2 mg/m³ Cuelling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.2 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ TWA: 0.10 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.2 mg/m³ STEL: 0.6 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs:	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.16 mg/m³ TWA: 0.16 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.16 mg/m³ TWA: 0.17 mg/m³ TWA: 0.18 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ TWA: 0.12 mg/m³ TWA: 0.15 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.16 mg/m³ TWA: 0.17 mg/m³ TWA: 0.18 mg/m³ TWA: 0.18 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs:	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.16 mg/m³ TWA: 0.17 mg/m³ TWA: 0.18 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs:	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.2 mg/m³ TWA: 0.16 mg/m³ STEL: 0.6 mg/m³ STEL: 0.6 mg/m³ TWA: 1 mg/m³ TWA: 1 mg/m³ TWA: 1 mg/m³ STEL: 1 ppm
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs:	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.16 mg/m³ TWA: 0.17 mg/m³ STEL: 0.6 mg/m³ TWA: 1 mg/m³ TWA: 0.1 mg/m³ STEL: 1 ppm STEL: 0.1 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs:	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.1 mg/m³ TWA: 1 mg/m³ TWA: 1 mg/m³ TWA: 0.1 mg/m³ STEL: 0.1 mg/m³ STEL: 0.1 mg/m³ TWA: 0.2 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs: Norway	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.1 mg/m³ TWA: 0.1 mg/m³ TWA: 0.1 mg/m³ TWA: 0.1 mg/m³ STEL: 1 ppm STEL: 0.1 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs: Norway Poland	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.1 mg/m³ TWA: 0.2 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs: Norway Poland Portugal Spain OEL - Time Weighted Average (TWA):	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.1 mg/m³ TWA: 0.2 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs: Norway Poland	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.02 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.1 mg/m³ TWA: 0.2 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs: Norway Poland Portugal Spain OEL - Time Weighted Average (TWA): Sweden - OEL - 8 Hour Switzerland	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.2 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.16 mg/m³ TWA: 0.10 mg/m³ TWA: 1 mg/m³ TWA: 0.1 mg/m³ TWA: 0.2 mg/m³ TWA: 0.5 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs: Norway Poland Portugal Spain OEL - Time Weighted Average (TWA): Sweden - OEL - 8 Hour Switzerland UK oes/mel:	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.02 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.1 mg/m³ TWA: 0.2 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs: Norway Poland Portugal Spain OEL - Time Weighted Average (TWA): Sweden - OEL - 8 Hour Switzerland UK oes/mel: Sodium borate; Na2B4O7	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.16 mg/m³ TWA: 0.1 mg/m³ TWA: 1 mg/m³ TWA: 1 mg/m³ TWA: 0.1 mg/m³ TWA: 0.1 mg/m³ TWA: 0.1 mg/m³ TWA: 0.1 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.5 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs: Norway Poland Portugal Spain OEL - Time Weighted Average (TWA): Sweden - OEL - 8 Hour Switzerland UK oes/mel: Sodium borate; Na2B4O7 Australia TWA	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.1 mg/m³ TWA: 1 mg/m³ TWA: 1 mg/m³ TWA: 0.1 mg/m³ TWA: 0.1 mg/m³ TWA: 0.1 mg/m³ TWA: 0.1 mg/m³ STEL: 0.1 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.5 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs: Norway Poland Portugal Spain OEL - Time Weighted Average (TWA): Sweden - OEL - 8 Hour Switzerland UK oes/mel: Sodium borate; Na2B4O7 Australia TWA Belgium - 8 Hr TWA	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.16 mg/m³ TWA: 0.1 mg/m³ TWA: 1 mg/m³ TWA: 1 mg/m³ TWA: 0.1 mg/m³ TWA: 0.1 mg/m³ STEL: 1 ppm STEL: 0.1 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.5 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs: Norway Poland Portugal Spain OEL - Time Weighted Average (TWA): Sweden - OEL - 8 Hour Switzerland UK oes/mel: Sodium borate; Na2B4O7 Australia TWA Belgium - 8 Hr TWA Denmark	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ STEL: 0.6 mg/m³ TWA: 0.1 mg/m³ TWA: 1 mg/m³ TWA: 1 mg/m³ TWA: 1 mg/m³ TWA: 0.1 mg/m³ TWA: 0.1 mg/m³ STEL: 1 ppm STEL: 0.1 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.5 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs: Norway Poland Portugal Spain OEL - Time Weighted Average (TWA): Sweden - OEL - 8 Hour Switzerland UK oes/mel: Sodium borate; Na2B4O7 Australia TWA Belgium - 8 Hr TWA Denmark Greece - OEL	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ STEL: 0.6 mg/m³ TWA: 1 mg/m³ TWA: 1 mg/m³ TWA: 1 mg/m³ TWA: 1 mg/m³ TWA: 0.1 mg/m³ STEL: 0.1 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.5 mg/m³
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs: Norway Poland Portugal Spain OEL - Time Weighted Average (TWA): Sweden - OEL - 8 Hour Switzerland UK oes/mel: Sodium borate; Na2B4O7 Australia TWA Belgium - 8 Hr TWA Denmark	STEL 2 mg/m³ TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³ Ceiling / Peak: 1.6 mg/m³ Ceiling / Peak: 0.16 mg/m³ Ceiling / Peak: 0.16 mg/m³ TWA: 0.10 mg/m³ STEL: 0.6 mg/m³ TWA: 1 mg/m³ TWA: 1 mg/m³ TWA: 1 mg/m³ TWA: 0.1 mg/m³ STEL: 1 ppm STEL: 0.1 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.5 mg/m³

Ireland	TWA: 1 mg/m³	
n ciana	STEL: 3 mg/m ³	
Korea - ISHA - Occupational Exposure Limits - TWAs	1 mg/m³ TWA (anhydrous, Serial No. 239)	
Malaysia - Occupational Exposure Limits - 1 mg/m³ TWA		
TWAs		
Norway	TWA: 1 mg/m ³	
	STEL: 3 mg/m ³	
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	TWA: 1 mg/m ³	
UK oes/mel:	STEL: 3 mg/m ³	
	TWA: 1 mg/m ³	
Zinc sulphate mono hydrate; ZnSO4+1H2O		
German mak	TWA: 0.1 mg/m ³	
	TWA: 2 mg/m ³	
	Ceiling / Peak: 0.4 mg/m³	
	Ceiling / Peak: 4 mg/m ³	
Sodium molybdate; Na ₂ MoO ₄ +2H ₂ O		
Austria	STEL 10 mg/m ³	
	TWA: 5 mg/m ³	
Czech Republic OEL	5 mg/m³ TWA	
Denmark	TWA: 5 mg/m ³	
Finland	TWA: 0.5 mg/m ³	
France - Occupational Exposure Limits - 8 Hour VMEs	TWA: 5 mg/m ³	
	STEL: 10 mg/m ³	
Ireland	TWA: 10 mg/m³ TWA: 0.5 mg/m³	
	STEL: 30 mg/m ³ STEL: 1.5 mg/m ³	
Norway	TWA: 5 mg/m³	
	STEL: 5 mg/m³	
Poland	STEL: 10 mg/m³	
Destroyal.	TWA: 4 mg/m ³	
Portugal	TWA: 0.5 mg/m ³	
Spain OEL - Time Weighted Average (TWA):	TWA: 0.5 mg/m³	
Sweden - OEL - 8 Hour	5 mg/m³ LLV	
Switzerland	TWA: 5 mg/m³ TWA: 5 mg/m³	
UK oes/mel:		

Derived No Effect Level (DNEL)

No data available

Predicted No Effect Concentration (PNEC)

No data available.

8.2. Exposure controls

Engineering Measures to Reduce Ensure adequate ventilation, especially in confined areas.

Exposure:

Personal protective equipment

Eye/Face Protection: Tightly fitting safety goggles

Hand protection: Nitrile rubber (0.26 mm). Break through time. > 8 h.

Respiratory Protection: In case of insufficient ventilation wear suitable respiratory equipment.

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:

Appearance:

Color:

Odor:

Solid

Granules

brown.

Not significant

Bulk density:1018 - 1168 kg/m³pH:no data availableMelting Point/Freezing Point:no data availableBoiling Point/Range:Solid, Not Applicable

Boiling Point/Range: Solid, Not Applicable Flash Point: Solid, Not Applicable Solid, Not Applicable **Evaporation Rate:** 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

Explosive Properties: Doesn't present explosion hazard. Based on data of ingredients.

no data available

9.2. Other information

Decomposition Temperature:

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 derivates 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: May cause irritation. **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): 48,077.00 mg/kg

Skin Corrosion or IrritationSee also section 3.Serious Eye Damage or Eye IrritationSee also section 3.SensitizationSee also section 3.Mutagenic effectsSee 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	
Sodium borate; Na ₂ B ₄ O ₇	Reproductive Toxicity - Repr. 1B: H360FD May damage fertility. May	
	damage the unborn child. (C >= 4.5 %)	
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

Harmful to aquatic life with long lasting effects. Do not allow product to enter the environment uncontrolled.

9% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Ingredients	Algae/aquatic plants	Fish	Crustacea
Ammonium Nitrate; NH₄NO₃		65 - 85: 48 h Cyprinus carpio	
		mg/L LC50 semi-static	
Iron sulphate; FeSO ₄ +1H ₂ O		925: 96 h Poecilia reticulata mg/L	152: 48 h Daphnia magna mg/L
		LC50 static 0.56: 96 h Cyprinus carpio mg/L LC50 semi-static	EC50 6.15 - 9.26: 48 h Daphnia magna mg/L EC50 Static
Copper sulphate anh; CuSO ₄		0.1: 96 h Oncorhynchus mykiss mg/L LC50	0.024: 48 h Daphnia magna mg/L EC50
Sodium borate; Na ₂ B ₄ O ₇	158: 96 h Desmodesmus subspicatus mg/L	340: 96 h Limanda limanda mg/L LC50	1085 - 1402: 48 h Daphnia magna mg/L LC50

12.2. Persistence and degradability

No data available.

12.3 Rioaccumulative notential

12.0. Dioaccamalative potential		
Component	LOGPOW	
Ammonium Nitrate; NH ₄ NO ₃	-3.1	
6484-52-2 (30 - 60%)		

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

Hazchem code: 1Z

IMO / IMDG

14.1

UN-No: 14.2

Proper shipping name:

AMMONIUM NITRATE BASED FERTILIZER

Osmocote Exact Standard 12-14M

Revision Date: 24-Jun-2016

14.3

Hazard Class: 9

14.4

Packing group:

14.5

Component IMDG - Marine Pollutants

Copper sulphate anh; CuSO₄

7758-98-7 (0.1 - 1%)

IMDG regulated marine pollutant (Listed in the index, listed under Copper sulphate, anhydrous, hydrates and solution)

Marine Pollutant: No information available

<u>14.6</u>

EmS: F-H / S-Q Special Provisions 186, 193

14.7

Transport in bulk according to Annex II of MARPOL 73/78 Not regulated

and the IBC Code

ADR/RID

<u>14.1</u> UN-No: 2071

14.2

Proper shipping name: AMMONIUM NITRATE BASED FERTILIZER

14.3

Hazard Class: 9

14.4

Packing group:

14.5

Environmental Hazard Not regulated

14.6

Special Provisions None

14.1

UN-No: 2071

14.2

Proper shipping name: AMMONIUM NITRATE BASED FERTILIZER

14.3

Hazard Class: 9

<u>14.4</u>

Packing group:

<u>14.5</u>

Environmental Hazard Not regulated

14.6

Special Provisions A89, A90



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 ₄ NO ₃ 6484-52-2 (30 - 60%)	Use restricted. See item 58. (Conditions of restrictions 27 June 2010)
Sodium borate; Na ₂ B ₄ O ₇ 1330-43-4 (0.1 - 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; NH₄NO₃	2500 tonne (Note 3, applies to Ammonium	350 tonne (Note 3, applies to Ammonium
6484-52-2 (30 - 60%)	nitrate in which the Nitrogen content due to	nitrate in which the Nitrogen content due to
	Ammonium nitrate is >28% by weight	Ammonium nitrate is >28% by weight
	containing <=0.2 % combustible material,	containing <=0.2 % combustible material,
	>24.5% and <28% by weight containing	>24.5% and <28% by weight containing
	<=0.4% combustible material and to	<=0.4% combustible material and to aqueous
	aqueous Ammonium nitrate solutions in	Ammonium nitrate solutions in which the
	which the concentration of Ammonium nitrat	e concentration of Ammonium nitrate is >80%
	is >80% by weight)	by weight)

<u>Denmark</u>

Danish Sikkerhedsgruppe B

France

ICPE Classified installation: article 1331 (Type I)

Germany

Gefahrstoffverordnung (Germany) TRGS 511 B II LGK (Germany) 5.1C

Water Endangering Class (WGK): 1 (Everris classification)

Component	German WGK Section
Ammonium Nitrate; NH₄NO₃	class 1
6484-52-2 (30 - 60%)	
Iron sulphate; FeSO ₄ +1H ₂ O	class 1
7720-78-7 (1 - 5%)	
Iron EDTA; Fe-EDTA	class 2
15708-41-5 (0.1 - 1%)	
Copper sulphate anh; CuSO ₄	class 2
7758-98-7 (0.1 - 1%)	
Manganese sulphate; MnSO ₄ +1H ₂ O	class 1
7785-87-7 (0.1 - 1%)	
Sodium borate; Na ₂ B ₄ O ₇	class 1
1330-43-4 (0.1 - 1%)	
Zinc sulphate mono hydrate; ZnSO ₄ +1H ₂ O	class 3
7446-19-7 (< 0.1%)	
Sodium molybdate; Na ₂ MoO ₄ +2H ₂ O	class 1
7631-95-0 (< 0.1%)	

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

H319 - Causes serious eye irritation

H272 - May intensify fire; oxidizer

H302 - Harmful if swallowed

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/ digestive system/ central nervous system through prolonged or repeated exposure if swallowed

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

Revision Date: 24-Jun-2016

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)

 Issue Date:
 03-Feb-2014

 Revision Date:
 24-Jun-2016

Reason for revision: *** 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

This information contained herein is, to the best of Everris' knowledge and belief, accurate and reliable as of the date of preparation of this document. However, no warranty or guarantee, express or implied, is made as to the accuracy or reliability, and Everris shall not be liable for any loss or damage arising out of the use thereof. No authorization is given or implied to use any patented invention without a license. In addition, Everris shall not be liable for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.

End of Safety Data Sheet