Category 3 - (H412)

Issue Date: 20-Feb-2014

Revision Date: 30-Jun-2016

Safety Data Sheet

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

1.1. Product identifier	
Product Code	88410225AU
Product Name:	Osmocote Exact Standard 5-6M
Proper shipping name:	AMMONIUM NITRATE BASED FERTILIZER
1.2. Relevant identified uses of	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
	the barety data brief
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

2.2. Label elements

Product Identifier: Signal Word: None

Hazard Statements:

H412 - Harmful to aquatic life with long lasting effects

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

P501 - Dispose of container in accordance with local regulation P332 + P313 - If skin irritation occurs: Get medical advice/attention

### Other hazards (UN-GHS)

H316 - Causes mild skin irritation.

## 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
	229-347-8	6484-52-2	30 - 60%	Eye Irrit. 2 (H319)	01-2119490981-27
Ammonium Nitrate; NH4NO3				Ox. Sol. 3 (H272)	
	231-900-3	10101-41-4	1 - 5%	Not classified	01-2119444918-26

Calcium sulphate dihydrate;					
CaSO4+2H2O Iron sulphate; FeSO4+1H2O	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; CuSO4	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; MnSO4+1H2O	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 <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	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; Na2MoO4+2H2O	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.	
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 me	dical 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.
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: Pre Methods for Cleanup: Sho

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

LGK (Germany) Packaging Materials: 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. 5.1C

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 <sup>3</sup>	
	TWA: 4 mg/m <sup>3</sup>	

Desturied	
Portugal Spain OEL - Time Weighted Average (TWA):	TWA: 10 mg/m³           TWA: 10 mg/m³
Spain OEL - Time weighted Average (TWA):	TWA: 10 mg/m <sup>3</sup>
Iron sulphate; FeSO4+1H2O	
Belgium - 8 Hr TWA	1 mg/m <sup>3</sup>
Denmark	TWA: 1 mg/m <sup>3</sup>
Finland	TWA: 1 mg/m <sup>3</sup>
Ireland	TWA: 1 mg/m <sup>3</sup>
	STEL: 2 mg/m <sup>3</sup>
Netherlands - OEL - MACs:	1 mg/m <sup>3</sup>
Norway	TWA: 1 mg/m <sup>3</sup>
	STEL: 1 mg/m <sup>3</sup>
Portugal	TWA: 1 mg/m <sup>3</sup>
Spain OEL - Time Weighted Average (TWA):	TWA: 1 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>
Switzerland UK oes/mel:	TWA: 1 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>
Iron EDTA; Fe-EDTA	
Denmark	TWA: 1 mg/m <sup>3</sup>
Finland	TWA: 1 mg/m <sup>3</sup>
Portugal	TWA: 1 mg/m <sup>3</sup>
Spain OEL - Time Weighted Average (TWA):	TWA: 1 mg/m <sup>3</sup>
Switzerland	TWA: 1 mg/m <sup>3</sup>
Copper sulphate anh; CuSO4	•
Austria	STEL 4 mg/m <sup>3</sup>
	STEL 0.4 mg/m <sup>3</sup>
	TWA: 1 mg/m <sup>3</sup>
	TWA: 0.1 mg/m <sup>3</sup> N.A.
Australia TWA Finland	TWA: 1 mg/m <sup>3</sup>
German mak	TWA: 0.01 mg/m <sup>3</sup>
	Ceiling / Peak: 0.02 mg/m <sup>3</sup>
Netherlands - OEL - MACs:	0.1 mg/kg TWA
Poland	TWA: 0.2 mg/m <sup>3</sup>
Russia TWA	0.5 mg/m <sup>3</sup> TWA 1200
Switzerland	STEL: 0.2 mg/m <sup>3</sup>
Switzerland	STEL: 0.2 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>
Switzerland Manganese sulphate; MnSO4+1H2O	TWA: 0.1 mg/m <sup>3</sup>
Switzerland	TWA: 0.1 mg/m <sup>3</sup> STEL 2 mg/m <sup>3</sup>
Switzerland Manganese sulphate; MnSO4+1H2O Austria	TWA: 0.1 mg/m <sup>3</sup> STEL 2 mg/m <sup>3</sup> TWA: 0.5 mg/m <sup>3</sup>
Switzerland <u>Manganese sulphate; MnSO₄+1H₂O</u> Austria Australia TWA	TWA: 0.1 mg/m³           STEL 2 mg/m³           TWA: 0.5 mg/m³           0.2 mg/m³
Switzerland Manganese sulphate; MnSO4+1H2O Austria	TWA: 0.1 mg/m³           STEL 2 mg/m³           TWA: 0.5 mg/m³           0.2 mg/m³           0.2 mg/m³
Switzerland <u>Manganese sulphate; MnSO₄+1H₂O</u> Austria Australia TWA Belgium - 8 Hr TWA	TWA: 0.1 mg/m³           STEL 2 mg/m³           TWA: 0.5 mg/m³           0.2 mg/m³           0.2 mg/m³           TWA: 0.2 mg/m³
Switzerland <u>Manganese sulphate; MnSO4+1H2O</u> Austria Australia TWA Belgium - 8 Hr TWA Denmark	TWA: 0.1 mg/m³           STEL 2 mg/m³           TWA: 0.5 mg/m³           0.2 mg/m³           0.2 mg/m³           TWA: 0.2 mg/m³
Switzerland <u>Manganese sulphate; MnSO4+1H2O</u> Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland	TWA: 0.1 mg/m³           STEL 2 mg/m³           TWA: 0.5 mg/m³           0.2 mg/m³           0.2 mg/m³           TWA: 0.2 mg/m³
Switzerland <u>Manganese sulphate; MnSO4+1H2O</u> Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland	TWA: 0.1 mg/m³           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
Switzerland <u>Manganese sulphate; MnSO4+1H2O</u> Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland	TWA: 0.1 mg/m³           STEL 2 mg/m³           TWA: 0.5 mg/m³           0.2 mg/m³           0.2 mg/m³           TWA: 0.2 mg/m³
Switzerland <u>Manganese sulphate; MnSO4+1H2O</u> Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland	TWA: 0.1 mg/m³           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
Switzerland <u>Manganese sulphate; MnSO4+1H2O</u> Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland	TWA: 0.1 mg/m³           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
Switzerland <u>Manganese sulphate; MnSO₄+1H₂O</u> Australia Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak	TWA: 0.1 mg/m³         STEL 2 mg/m³         TWA: 0.5 mg/m³         0.2 mg/m³         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: 0.2 mg/m³         STEL: 0.6 mg/m³
Switzerland <u>Manganese sulphate; MnSO4+1H2O</u> Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs:	TWA: 0.1 mg/m³         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: 0.2 mg/m³         Ceiling / Peak: 1.6 mg/m³         Ceiling / Peak: 0.16 mg/m³         TWA: 0.2 mg/m³         STEL: 0.6 mg/m³         1 mg/m³
Switzerland <u>Manganese sulphate; MnSO4+1H2O</u> Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland	TWA: 0.1 mg/m³           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: 0.2 mg/m³           Ceiling / Peak: 1.6 mg/m³           Ceiling / Peak: 1.6 mg/m³           Ceiling / Peak: 0.16 mg/m³           TWA: 0.2 mg/m³           TWA: 0.10 mg/m³
Switzerland <u>Manganese sulphate; MnSO4+1H2O</u> Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs:	TWA: 0.1 mg/m³           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: 0.2 mg/m³           Ceiling / Peak: 1.6 mg/m³           Ceiling / Peak: 1.6 mg/m³           Ceiling / Peak: 0.16 mg/m³           TWA: 0.2 mg/m³           TWA: 0.1 mg/m³
Switzerland <u>Manganese sulphate; MnSO4+1H2O</u> Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs:	TWA: 0.1 mg/m³         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: 0.2 mg/m³         Ceiling / Peak: 1.6 mg/m³         Ceiling / Peak: 1.6 mg/m³         Ceiling / Peak: 0.16 mg/m³         TWA: 0.2 mg/m³         STEL: 0.6 mg/m³         TWA: 0.1 mg/m³         TWA: 0.1 mg/m³         STEL: 1 ppm
Switzerland Manganese sulphate; MnSO4+1H2O Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs: Norway	TWA: 0.1 mg/m³         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: 0.2 mg/m³         Ceiling / Peak: 1.6 mg/m³         Ceiling / Peak: 1.6 mg/m³         Ceiling / Peak: 0.16 mg/m³         TWA: 0.2 mg/m³         STEL: 0.6 mg/m³         STEL: 0.6 mg/m³         TWA: 0.1 mg/m³         STEL: 1 ppm         STEL: 0.1 mg/m³
Switzerland <u>Manganese sulphate; MnSO4+1H2O</u> Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs:	TWA: 0.1 mg/m³         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: 0.2 mg/m³         Ceiling / Peak: 1.6 mg/m³         Ceiling / Peak: 1.6 mg/m³         Ceiling / Peak: 0.16 mg/m³         TWA: 0.2 mg/m³         STEL: 0.6 mg/m³         STEL: 0.6 mg/m³         TWA: 0.1 mg/m³         STEL: 1 ppm         STEL: 0.1 mg/m³         TWA: 0.2 mg/m³
Switzerland Manganese sulphate; MnSO4+1H2O Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs: Norway	TWA: 0.1 mg/m³         STEL 2 mg/m³         TWA: 0.5 mg/m³         0.2 mg/m³         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: 0.2 mg/m³         Ceiling / Peak: 1.6 mg/m³         Ceiling / Peak: 0.16 mg/m³         Ceiling / Peak: 0.16 mg/m³         TWA: 0.2 mg/m³         STEL: 0.6 mg/m³         STEL: 0.1 mg/m³         TWA: 0.1 mg/m³         STEL: 1 ppm         STEL: 0.1 mg/m³         TWA: 0.2 mg/m³
Switzerland Manganese sulphate; MnSO4+1H2O Austria Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak Ireland Netherlands - OEL - MACs: Norway Poland Portugal	TWA: 0.1 mg/m³         STEL 2 mg/m³         TWA: 0.5 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         Ceiling / Peak: 1.6 mg/m³         Ceiling / Peak: 0.16 mg/m³         Ceiling / Peak: 0.16 mg/m³         TWA: 0.2 mg/m³         STEL: 0.6 mg/m³         STEL: 1 pm         STEL: 1 ppm         STEL: 1 ppm         STEL: 0.1 mg/m³         TWA: 0.2 mg/m³         TWA: 0.2 mg/m³
Switzerland Manganese sulphate; MnSO4+1H2O Austria 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	TWA: 0.1 mg/m³         STEL 2 mg/m³         TWA: 0.5 mg/m³         0.2 mg/m³         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: 0.2 mg/m³         Ceiling / Peak: 1.6 mg/m³         Ceiling / Peak: 0.16 mg/m³         Ceiling / Peak: 0.16 mg/m³         TWA: 0.2 mg/m³         STEL: 0.6 mg/m³         STEL: 0.1 mg/m³         TWA: 0.1 mg/m³         STEL: 1 ppm         STEL: 0.1 mg/m³         TWA: 0.2 mg/m³
Switzerland Manganese sulphate; MnSO4+1H2O Austria 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	TWA: 0.1 mg/m³         STEL 2 mg/m³         TWA: 0.5 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         Ceiling / Peak: 1.6 mg/m³         Ceiling / Peak: 0.16 mg/m³         Ceiling / Peak: 0.16 mg/m³         TWA: 0.2 mg/m³         STEL: 0.6 mg/m³         STEL: 1 pm         STEL: 1 ppm         STEL: 1 ppm         STEL: 0.1 mg/m³         TWA: 0.2 mg/m³         TWA: 0.2 mg/m³
Switzerland Manganese sulphate; MnSO4+1H2O Austria 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:	TWA: 0.1 mg/m³         STEL 2 mg/m³         TWA: 0.5 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         Ceiling / Peak: 1.6 mg/m³         Ceiling / Peak: 0.16 mg/m³         Ceiling / Peak: 0.16 mg/m³         TWA: 0.2 mg/m³         STEL: 0.6 mg/m³         STEL: 1.6 mg/m³         STEL: 0.1 mg/m³         STEL: 1 ppm         STEL: 1 ppm         STEL: 0.1 mg/m³         TWA: 0.2 mg/m³         TWA: 0.2 mg/m³         TWA: 0.2 mg/m³         STEL: 1 ppm         STEL: 0.1 mg/m³         TWA: 0.2 mg/m³
Switzerland Manganese sulphate: MnSO4+1H2O Austria 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	TWA: 0.1 mg/m³         STEL 2 mg/m³         TWA: 0.5 mg/m³         0.2 mg/m³         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         Ceiling / Peak: 0.16 mg/m³         TWA: 0.2 mg/m³         STEL: 0.6 mg/m³         STEL: 0.6 mg/m³         TWA: 0.1 mg/m³         STEL: 0.1 mg/m³         TWA: 0.2 mg/m³
Switzerland Manganese sulphate; MnSO4+1H2O 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	TWA: 0.1 mg/m³         STEL 2 mg/m³         TWA: 0.5 mg/m³         0.2 mg/m³         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         Ceiling / Peak: 0.16 mg/m³         TWA: 0.2 mg/m³         STEL: 0.6 mg/m³         STEL: 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: 0.1 mg/m³         TWA: 0.2 mg/m³         TWA: 0.1 mg/m³         STEL: 1 ppm         STEL: 0.1 mg/m³         TWA: 0.2 mg/m³         TWA: 0.5 mg/m³         TWA: 0.5 mg/m³         TWA: 0.5 mg/m³         TWA: 0.5 mg/m³
Switzerland Manganese sulphate; MnSO4+1H2O 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	TWA: 0.1 mg/m³         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: 0.2 mg/m³         Ceiling / Peak: 1.6 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: 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: 0.1 mg/m³         TWA: 0.1 mg/m³         TWA: 0.2 mg/m³         TWA: 0.2 mg/m³         STEL: 1 ppm         STEL: 0.1 mg/m³         TWA: 0.2 mg/m³         TWA: 0.5 mg/m³
Switzerland Manganese sulphate; MnSO4+1H2O Austria 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	TWA: 0.1 mg/m³         STEL 2 mg/m³         TWA: 0.5 mg/m³         0.2 mg/m³         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         Ceiling / Peak: 0.16 mg/m³         TWA: 0.2 mg/m³         STEL: 0.6 mg/m³         STEL: 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: 0.1 mg/m³         TWA: 0.2 mg/m³         TWA: 0.1 mg/m³         STEL: 1 ppm         STEL: 0.1 mg/m³         TWA: 0.2 mg/m³         TWA: 0.5 mg/m³         TWA: 0.5 mg/m³         TWA: 0.5 mg/m³         TWA: 0.5 mg/m³

Iceland - OEL - 8 Hour	1 mg/m³ TWA
France - Occupational Exposure Limits - 8 Hour VMEs	TWA: 1 mg/m <sup>3</sup>
Ireland	TWA: 1 mg/m <sup>3</sup>
	STEL: 3 mg/m <sup>3</sup>
Korea - ISHA - Occupational Exposure Limits - TWAs	1 mg/m <sup>3</sup> TWA (anhydrous, Serial No. 239)
Malaysia - Occupational Exposure Limits - 1 mg/m <sup>3</sup> TWA	
TWAs	
Norway	TWA: 1 mg/m <sup>3</sup>
	STEL: 3 mg/m <sup>3</sup>
Portugal	STEL: 6 mg/m <sup>3</sup>
	TWA: 2 mg/m <sup>3</sup>
Spain OEL - Time Weighted Average (TWA):	STEL: 6 mg/m <sup>3</sup>
	TWA: 2 mg/m <sup>3</sup>
Switzerland	TWA: 1 mg/m <sup>3</sup>
UK oes/mel:	STEL: 3 mg/m <sup>3</sup>
	TWA: 1 mg/m <sup>3</sup>
Zinc sulphate mono hydrate; ZnSO4+1H2O	
German mak	TWA: 0.1 mg/m <sup>3</sup>
	TWA: 2 mg/m <sup>3</sup>
	Ceiling / Peak: 0.4 mg/m³ Ceiling / Peak: 4 mg/m³
Sodium molybdate; Na2MoO4+2H2O	Cening / Feak. 4 hig/his
Austria	STEL 10 mg/m <sup>3</sup>
Austria	TWA: 5 mg/m <sup>3</sup>
Czech Republic OEL	5 mg/m <sup>3</sup> TWA
Denmark	TWA: 5 mg/m <sup>3</sup>
Finland	TWA: 0.5 mg/m <sup>3</sup>
France - Occupational Exposure Limits - 8 Hour VMEs	TWA: 5 mg/m <sup>3</sup>
	STEL: 10 mg/m <sup>3</sup>
Ireland	TWA: 10 mg/m <sup>3</sup> TWA: 0.5 mg/m <sup>3</sup>
	STEL: 30 mg/m <sup>3</sup> STEL: 1.5 mg/m <sup>3</sup>
Norway	TWA: 5 mg/m <sup>3</sup>
-	STEL: 5 mg/m <sup>3</sup>
Poland	STEL: 10 mg/m <sup>3</sup>
	TWA: 4 mg/m <sup>3</sup>
Portugal	TWA: 0.5 mg/m³
Spain OEL - Time Weighted Average (TWA):	TWA: 0.5 mg/m <sup>3</sup>
Sweden - OEL - 8 Hour	5 mg/m³ LLV
Switzerland	TWA: 5 mg/m <sup>3</sup>
UK oes/mel:	TWA: 5 mg/m <sup>3</sup>

### 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:	Ensure adequate ventilation, especially in confined areas.
<b>Personal protective equipment</b>	Tightly fitting safety goggles
Eye/Face Protection:	Nitrile rubber (0.26 mm). Break through time. > 8 h.
Hand protection:	In case of insufficient ventilation wear suitable respiratory equipment.
Respiratory Protection:	Lightweight protective clothing
Skin and Body Protection:	Follow good housekeeping practices. When using, do not eat, drink or smoke. Keep away
Hygiene Measures:	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

<u>9.1. Information on basic physical and chemical properties</u> Physical State: Appearance:

Solid

Granules

### **Osmocote Exact Standard 5-6M**

Color: Odor: **Bulk density:** pH: **Melting Point/Freezing Point:** Boiling Point/Range: Flash Point: **Evaporation Rate:** Flammability (solid, gas): Vapor Pressure: Vapor Density: **Specific Gravity:** Water Solubility: Solubility(ies) Partition Coefficient: Autoignition Temperature: **Decomposition Temperature: Explosive Properties:** 

brown, Greenish. Not significant 900 - 1100 kg/m<sup>3</sup> no data available no data available Solid, Not Applicable Solid, Not Applicable Solid, Not Applicable Non-flammable Solid, Not Applicable Solid, Not Applicable no data available Soluble in water no data available Solid, Not Applicable Not Applicable no data available 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 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 e	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): 47,170.00 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
Sodium borate; Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	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.

7% 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; FeSO4+1H2O		925: 96 h Poecilia reticulata mg/L	152: 48 h Daphnia magna mg/L
		LC50 static 0.56: 96 h Cyprinus	EC50 6.15 - 9.26: 48 h Daphnia
		carpio mg/L LC50 semi-static	magna mg/L EC50 Static
Copper sulphate anh; CuSO <sub>4</sub>		0.1: 96 h Oncorhynchus mykiss	0.024: 48 h Daphnia magna mg/L
		mg/L LC50	EC50
Sodium borate; Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	158: 96 h Desmodesmus	340: 96 h Limanda limanda mg/L	1085 - 1402: 48 h Daphnia magna
	subspicatus mg/L	LC50	mg/L LC50

### 12.2. Persistence and degradability

No data available.

#### 12.3. Bioaccumulative potential

Component	LOGPOW	
Ammonium Nitrate; NH4NO3	-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:

Contaminated Packaging: Other Information:

1Z

Disposal should be in accordance with applicable regional, national and local laws and regulations. Do not re-use empty containers. Dispose of as unused product. Use up product completely. Packaging material is industrial waste.

## Section 14: TRANSPORT INFORMATION

Hazchem code: IMO / IMDG

/ IMDG

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

2071

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9

14.0		
14.2 Proper shipping name:	AMMONIII IM NITRATE BASED FERTILIZER	
Proper shipping name: 14.3	AMMONIUM NITRATE BASED FERTILIZER	
Hazard Class:	9	
14.4	•	
Packing group:	III	
14.5_		
Component	IMDG - Marine Pollutants	
Copper sulphate anh; CuSO4	IMDG regulated marine pollutant (Listed in the index,	
7758-98-7 (0.1 - 1%)	listed under Copper sulphate, anhydrous, hydrates and	
	solution)	
Marine Pollutant:	No information available	
14.6		
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>	0074	
JN-No:	2071	
14.2		
Proper shipping name:	AMMONIUM NITRATE BASED FERTILIZER	
<u>14.3</u> Hazard Class:		
	9	
<u>14.4</u> Packing group:		
14.5	III	
Environmental Hazard	Not regulated	
14.6	Not regulated	
Special Provisions	None	
ΙΑΤΑ		
<u>14.1</u>		
UN-No:	2071	
14.2		
Proper shipping name:	AMMONIUM NITRATE BASED FERTILIZER	
<u>14.3</u>		
Hazard Class:	9	
<u>14.4</u>		
Packing group:	III	
<u>14.5</u>	Net we will be al	
Environmental Hazard	Not regulated	
<u>14.6</u> Special Draviaiana	A80 A00	
Special Provisions	A89, A90	

# Section 15: REGULATORY INFORMATION

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

#### REACH:

Dolaium

Component	EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances
Ammonium Nitrate; NH4NO3	Use restricted. See item 58. (Conditions of restrictions 27 June 2010)
6484-52-2 ( 30 - 60% )	
Sodium borate; Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	Use restricted. See item 30.
1330-43-4 ( 0.1 - 1% )	
No data available	

### National regulations

Component	Belgium - Major Accidents - Qualifying Quantities for Safety Reporting	Belgium - Major Accidents - Qualifying Quantities for Accident Prevention
Ammonium Nitrate; NH₄NO <sub>3</sub>	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 aqueou
	aqueous Ammonium nitrate solutions in	Ammonium nitrate solutions in which the
	which the concentration of Ammonium nitrat	te concentration of Ammonium nitrate is >80%
	is >80% by weight)	by weight)

### <u>Denmark</u>

Danish Sikkerhedsgruppe

<u>France</u> ICPE

<u>Germany</u> Gefahrstoffverordnung (Germany) TRGS 511 LGK (Germany) Water Endangering Class (WGK): В

Classified installation: article 1331 (Type I)

B II 5.1C

1 (Everris classification)

Component	German WGK Section	
Ammonium Nitrate; NH4NO3	class 1	
6484-52-2 ( 30 - 60% )		
Iron sulphate; FeSO4+1H2O	class 1	
7720-78-7(1 - 5%)		
Iron EDTA; Fe-EDTA	class 2	
15708-41-5 ( 0.1 - 1% )		
Copper sulphate anh; CuSO4	class 2	
7758-98-7 ( 0.1 - 1% )		
Manganese sulphate; MnSO4+1H2O	class 1	
7785-87-7 ( 0.1 - 1% )		
Sodium borate; Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	class 1	
1330-43-4 ( 0.1 - 1% )		
Zinc sulphate mono hydrate; ZnSO4+1H2O	class 3	
7446-19-7 ( < 0.1% )		
Sodium molybdate; Na2MoO4+2H2O	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 H360FD - May damage fertility. May damage the unborn child

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 Key or legend to abbreviations and acronyms used in the safety data sheet Regulations Concerning the International Transport of Dangerous Goods by Rail RID: International Civil Aviation Organization ICAO: ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road International Maritime Code for Dangerous Goods IMDG: IATA: International Air Transport Association GHS: Globally Harmonized System of Classification and Labeling of Chemicals European Inventory of Existing Commercial Chemical Substances EINECS: CAS: Chemical Abstracts Service (division of the American Chemical Society) Predicted No Effect Concentration PNEC: **Derived No-Effect Level** DNEL: Registration, Evaluation, authorization of Chemicals Reach: CLP: EU-GHS; Classification, Labelling and Packaging **OEL: Occupational Exposure Limit Time Weighted Average** TWA: ATE: Acute Toxicity Estimate EUH statement: CLP (EU) specific hazard statement. Classification procedure: - Calculation method - Expert judgment and weight of evidence determination According to EC Regulation 1907/2006 (Reach), Regulation EU Key literature references and sources for data No. 2015/830. Regulation (EC) No 1272/2008. Regulatory Affairs Department (INFO-MSDS@EVERRIS.COM) Prepared by: **Issue Date:** 20-Feb-2014 **Revision Date:** 30-Jun-2016 \*\*\* Indicates changes since the last revision. This version Reason for revision: 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