## **Safety Data Sheet**

Issue Date: 21-Oct-2013 Revision Date: 28-Jun-2016 Version: 1

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

1.1. Product identifier

Product Code 87490225AU

Product Name: Osmocote Pro 12-14M

**Synonyms:** Osmocote Pro 16-4.8-8.3+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)

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 <sub>4</sub> NO <sub>3</sub>	229-347-8	6484-52-2	30 - 60%	Eye Irrit. 2 (H319) Ox. Sol. 3 (H272)	01-2119490981-27
Urea	200-315-5	57-13-6	1 - 5%	Not classified	01-2119463277-33
5.55	231-900-3	10101-41-4	1 - 5%	Not classified	01-2119444918-26

Calcium sulphate dihydrate; CaSO <sub>4</sub> +2H <sub>2</sub> O					
Iron sulphate; FeSO <sub>4</sub> +1H <sub>2</sub> 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
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; MnSO <sub>4</sub> +1H <sub>2</sub> 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 <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
Biuret; C₅H₅O7	203-559-0	108-19-0	< 0.1%	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	no data available
Sodium molybdate; Na <sub>2</sub> MoO <sub>4</sub> +2H <sub>2</sub> O	231-551-7	7631-95-0	< 0.1%	Not classified	01-2119489495-21
Zinc sulphate mono hydrate; ZnSO <sub>4</sub> +1H <sub>2</sub> 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. Rinse

with plenty of water.

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:

Dry powder. Sand. Alcohol-resistant 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.

## 5.3. Advice for firefighters

Coordinate fire extinguishing measures to fire in surrounding area.

#### 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

Do not flush into surface water or sanitary sewer system. Keep away from living quarters.

#### 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: Avoid dust formation. 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) 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			
Urea Company C				
Bulgaria - Occupational Exposure Limits - TWAs	10.0 mg/m <sup>3</sup> TWA			
Latvia - Occupational Exposure Limits - TWAs	10 mg/m³ TWA			
Norway	TWA: 30 μg Hg/g Creatinine			
	STEL: 30 μg Hg/g Creatinine			
Calcium sulphate dihydrate; CaSO4+2H2O				

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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>		
Portugal	TWA: 10 mg/m³		
Spain OEL - Time Weighted Average (TWA):	TWA: 10 mg/m³		
Switzerland	TWA: 3 mg/m <sup>3</sup>		
Iron sulphate; FeSO <sub>4</sub> +1H <sub>2</sub> O	A / 3		
Belgium - 8 Hr TWA	1 mg/m³ TWA: 1 mg/m³		
Denmark Finland	TWA: 1 mg/m²		
Ireland	TWA: 1 mg/m³		
in Grand	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>		
Switzerland	TWA: 1 mg/m <sup>3</sup>		
UK oes/mel:	TWA: 1 mg/m <sup>3</sup>		
Copper sulphate anh; CuSO4			
Austria	STEL 4 mg/m³		
	STEL 0.4 mg/m <sup>3</sup>		
	TWA: 1 mg/m³ TWA: 0.1 mg/m³		
Australia TWA	N.A.		
Finland	TWA: 1 mg/m <sup>3</sup>		
German mak	TWA: 0.01 mg/m <sup>3</sup>		
orman max	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/m³ TWA 1200		
Switzerland	STEL: 0.2 mg/m <sup>3</sup>		
	TWA: 0.1 mg/m <sup>3</sup>		
Manganese sulphate; MnSO <sub>4</sub> +1H <sub>2</sub> O			
Austria	STEL 2 mg/m <sup>3</sup>		
	TWA: 0.5 mg/m <sup>3</sup>		
Australia TWA	TWA: 0.5 mg/m³ 0.2 mg/m³		
Australia TWA Belgium - 8 Hr TWA	TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³		
Australia TWA Belgium - 8 Hr TWA Denmark	TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³ TWA: 0.2 mg/m³		
Australia TWA Belgium - 8 Hr TWA	TWA: 0.5 mg/m³ 0.2 mg/m³ 0.2 mg/m³		
Australia TWA Belgium - 8 Hr TWA Denmark Finland	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		
Australia TWA Belgium - 8 Hr TWA Denmark Finland	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  TWA: 0.2 mg/m³  Ceiling / Peak: 1.6 mg/m³		
Australia TWA Belgium - 8 Hr TWA Denmark Finland	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  TWA: 0.2 mg/m³		
Australia TWA Belgium - 8 Hr TWA Denmark Finland	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  TWA: 0.2 mg/m³  Ceiling / Peak: 1.6 mg/m³		
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak	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  Ceiling / Peak: 1.6 mg/m³  Ceiling / Peak: 0.16 mg/m³		
Australia TWA Belgium - 8 Hr TWA Denmark Finland	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  Ceiling / 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	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: 0.2 mg/m³  STEL: 0.6 mg/m³		
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak  Ireland Netherlands - OEL - MACs:	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  Ceiling / Peak: 1.6 mg/m³  Ceiling / Peak: 0.16 mg/m³  TWA: 0.2 mg/m³  TWA: 0.2 mg/m³  TWA: 0.6 mg/m³  TWA: 0.8 mg/m³  TWA: 0.8 mg/m³		
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak	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  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  TWA: 0.16 mg/m³  TWA: 0.16 mg/m³  TWA: 0.10 mg/m³  TWA: 0.10 mg/m³		
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak  Ireland Netherlands - OEL - MACs:	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  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  TWA: 0.16 mg/m³  STEL: 0.6 mg/m³  TWA: 1 mg/m³  TWA: 1 mg/m³  TWA: 0.1 mg/m³  STEL: 1 ppm		
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak  Ireland Netherlands - OEL - MACs:	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  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  TWA: 1 mg/m³  TWA: 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:	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: 0.2 mg/m³  TWA: 0.16 mg/m³  TWA: 0.10 mg/m³  STEL: 0.10 mg/m³  TWA: 1 mg/m³  TWA: 1 mg/m³  TWA: 0.10 mg/m³  STEL: 1 ppm  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 Poland	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: 0.2 mg/m³  TWA: 0.16 mg/m³  STEL: 0.6 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		
Australia TWA Belgium - 8 Hr TWA Denmark Finland German mak  Ireland  Netherlands - OEL - MACs: Norway  Poland	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: 0.16 mg/m³  TWA: 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: 0.2 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):	TWA: 0.5 mg/m³  0.2 mg/m³  0.2 mg/m³  TWA: 0.0 mg/m³  Ceiling / Peak: 1.6 mg/m³  Ceiling / Peak: 0.16 mg/m³  TWA: 0.16 mg/m³  TWA: 0.10 mg/m³  STEL: 0.6 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		
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: 0.5 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  STEL: 1 ppm  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  Poland  Portugal Spain OEL - Time Weighted Average (TWA): Sweden - OEL - 8 Hour Switzerland	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: 0.16 mg/m³  TWA: 0.10 mg/m³  TWA: 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: 0.2 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:	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  STEL: 1 ppm  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  Poland  Portugal Spain OEL - Time Weighted Average (TWA): Sweden - OEL - 8 Hour Switzerland UK oes/mel: Sodium borate; Na2B4O7	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: 0.2 mg/m³  TWA: 0.16 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: 0.2 mg/m³  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		
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: 0.5 mg/m³  0.2 mg/m³  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  STEL: 0.6 mg/m³  TWA: 1 mg/m³  TWA: 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  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	TWA: 0.5 mg/m³  0.2 mg/m³  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  STEL: 0.6 mg/m³  TWA: 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  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	TWA: 0.5 mg/m³  0.2 mg/m³  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  STEL: 0.6 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 Belgium - 8 Hr TWA Denmark Greece - OEL Iceland - OEL - 8 Hour	TWA: 0.5 mg/m³ 0.2 mg/m³ 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 STEL: 0.6 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: 0.2 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; NazB4O7 Australia TWA Belgium - 8 Hr TWA Denmark Greece - OEL	TWA: 0.5 mg/m³ 0.2 mg/m³ 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 TWA: 1 mg/m³ TWA: 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 Denmark Greece - OEL Iceland - OEL - 8 Hour	TWA: 0.5 mg/m³ 0.2 mg/m³ 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 STEL: 0.6 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: 0.2 mg/m³ TWA: 0.2 mg/m³ TWA: 0.5 mg/m³		

	STEL: 3 mg/m <sup>3</sup>		
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 <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>		
Sodium molybdate; Na2MoO4+2H2O			
Austria	STEL 10 mg/m <sup>3</sup>		
	TWA: 5 mg/m <sup>3</sup>		
Czech Republic OEL	5 mg/m³ 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/m³ TWA: 0.5 mg/m³		
	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/m <sup>3</sup>		
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>		
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/m <sup>3</sup>		
	Ceiling / Peak: 4 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** 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: Lightweight protective 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:SolidAppearance:GranulesColor:brown, Greenish.Odor:Not significantBulk density:900 - 1100 kg/m³

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pH: No information available

**Melting Point/Freezing Point:** no data available **Boiling Point/Range:** Solid, Not Applicable Flash Point: Solid, Not Applicable **Evaporation Rate:** Solid, Not Applicable Non-flammable Flammability (solid, gas): Solid, Not Applicable **Vapor Pressure:** Vapor Density: Solid, Not Applicable **Specific Gravity:** no data available

Specific Gravity:no data availableWater Solubility:Soluble in waterSolubility(ies)no data availablePartition Coefficient:Solid, Not ApplicableAutoignition Temperature:Not ApplicableDecomposition 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 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: 8% of the mixture consists of ingredient(s) of unknown toxicity.

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

Reproductive Toxicity - Repr. 1B: H360FD May damage fertility. May Sodium borate; Na<sub>2</sub>B<sub>4</sub>O<sub>7</sub> 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.

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

Ingredients	Algae/aquatic plants	Fish	Crustacea
Ammonium Nitrate; NH <sub>4</sub> NO <sub>3</sub>		65 - 85: 48 h Cyprinus carpio mg/L LC50 semi-static	
Urea	> 10000: 192 h Scenedesmus quadricauda mg/L EC50	16200 - 18300: 96 h Poecilia reticulata mg/L LC50	3910: 48 h Daphnia magna mg/L EC50 Static 10000: 24 h Daphnia magna Straus mg/L EC50
Iron sulphate; FeSO <sub>4</sub> +1H <sub>2</sub> O		925: 96 h Poecilia reticulata mg/L LC50 static 0.56: 96 h Cyprinus carpio mg/L LC50 semi-static	· · · · · · · · · · · · · · · · · · ·
Copper sulphate anh; CuSO <sub>4</sub>		0.1: 96 h Oncorhynchus mykiss mg/L LC50	0.024: 48 h Daphnia magna mg/L EC50
Sodium borate; Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	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. Bioaccumulative potential

Component	LOGPOW
Ammonium Nitrate; NH₄NO₃	-3.1
6484-52-2 ( 30 - 60% )	
Urea	-1.59
57-13-6 ( 1 - 5% )	

#### 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 should be in accordance with applicable regional, **Disposal of Wastes:** 

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: 2071

14.2

Proper shipping name: AMMONIUM NITRATE BASED FERTILIZER

14.3

**Hazard Class:** 9

14.4

Packing group: PG III

14.5

**IMDG - Marine Pollutants** Component

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:** This product contains a chemical which is listed as a marine

pollutant according to IMDG/IMO

14.6

F-H/S-Q EmS: **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

14.1 2071 UN-No:

14.2

AMMONIUM NITRATE BASED FERTILIZER Proper shipping name:

14.3

Hazard Class: 9

<u>14.4</u>

Packing group: Ш

14.5

**Environmental Hazard** Not regulated

14.6

**Special Provisions** 186, 193

IATA

14.1 2071 UN-No:

14.2

Proper shipping name: AMMONIUM NITRATE BASED FERTILIZER

14.3

9 **Hazard Class:** 

14.4

PG III Packing group:

14.5

**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

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#### REACH:

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

<u>Belgium</u>

Component	Belgium - Major Accidents - Qualifying	Belgium - Major Accidents - Qualifying
	Quantities for Safety Reporting	Quantities for Accident Prevention
Ammonium Nitrate; NH <sub>4</sub> NO <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 aqueous
	aqueous Ammonium nitrate solutions in	Ammonium nitrate solutions in which the
	which the concentration of Ammonium nitrate	concentration of Ammonium nitrate is >80%
	is >80% by weight)	by weight)

Denmark

Danish Sikkerhedsgruppe B

<u>France</u>

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% )		
Urea	class 1	
57-13-6 ( 1 - 5% )		
Iron sulphate; FeSO <sub>4</sub> +1H <sub>2</sub> O	class 1	
7720-78-7 ( 0.1 - 1% )		
Copper sulphate anh; CuSO <sub>4</sub>	class 2	
7758-98-7 ( 0.1 - 1% )		
Manganese sulphate; MnSO <sub>4</sub> +1H <sub>2</sub> O	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% )		
Sodium molybdate; Na <sub>2</sub> MoO <sub>4</sub> +2H <sub>2</sub> O	class 1	
7631-95-0 ( < 0.1% )		
Zinc sulphate mono hydrate; ZnSO <sub>4</sub> +1H <sub>2</sub> O	class 3	
7446-19-7 ( < 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 organs through prolonged or repeated exposure in contact with skin

H411 - Toxic to aquatic life with long lasting effects

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

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**End of Safety Data Sheet**