



# Material Safety Data Sheet

According to EC Regulation 1907/2006

Print date: 30-Jun-2011

Revision Number: 4

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

### Identification of the substance or preparation

MSDS Ref. No.: 8749.02.01  
 Product name: Osmocote Pro 16+11+10+2MgO 12-14M  
 Synonyms: Osmocote Pro 16+4.8+8.3+1.2Mg 12-14M

### Use of the Substance/Preparation

Recommended use: Granulated fertilizer

### Company/Undertaking Identification

• Everris International BV  
 Nijverheidsweg 1-5; 6422 PD Heerlen (NL)  
 Tel: ++31 (0) 45-5609100; Fax: ++31 (0) 45-5609190

**Emergency telephone number:** • +44 1235 239 670 (24h)

**Email:** INFO-MSDS@EVERRIS.com

## 2. HAZARDS IDENTIFICATION

### Classification

The product is non-dangerous in accordance with Directive 1999/45/EC

### Most important hazards

None

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Chemical nature of the preparation

Components	CAS-No	Weight %	EC-No.	Classification
Potassium nitrate, KNO <sub>3</sub>	7757-79-1	1 - 5%	231-818-8	O;R08
Sulphur, S	7704-34-9	< 1%	231-722-6	Xi;R38
Copper sulphate, CuSO <sub>4</sub>	7758-98-7	< 1%	231-847-6	N;R50/53 Xi;R36/38 Xn;R22
Sodium molybdate, Na <sub>2</sub> MoO <sub>4</sub> +2H <sub>2</sub> O	7631-95-0	< 1%	231-298-2	NE

Components	CAS-No	Weight %	EC-No.	Classification
Manganese sulphate, MnSO <sub>4</sub>	7785-87-7	< 1%	232-08-99	N;R51/53 Xn;R48/20/22
Calcium sulphate dihydrate, CaSO <sub>4</sub> +2H <sub>2</sub> O	10101-41-4	< 1%	231-900-3	NE
Magnesium oxide, MgO	1309-48-4	< 1%	215-171-9	NE
Ammonium nitrate, NH <sub>4</sub> NO <sub>3</sub>	6484-52-2	> 25%	229-347-8	O;R08

NE = Non-Established

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

#### 4. FIRST AID MEASURES

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

#### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:**

Water.

**Unsuitable extinguishing media:**

Dry powder, Sand, Foam, CO<sub>2</sub>

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

Burning produces obnoxious and toxic fumes. In case of fire, cool with water or waterspray. 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.

**Special protective equipment for firefighters:**

In the event of fire and/or explosion do not breathe fumes. Wear self contained breathing apparatus for fire fighting if necessary.

**Specific methods:**

In case of fire separate from centre of fire.

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**

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

**Environmental precautions:**

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

**Methods for cleaning up:**

Avoid dust formation. Shovel or sweep up. Use up product completely. Packaging material is industrial waste.

## 7. HANDLING AND STORAGE

**Handling:****Technical measures/precautions:**

Avoid dust formation.

**Safe handling advice:**

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

**Storage:****Technical measures/storage conditions:**

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

**Incompatible products:**

Oxidising and spontaneously flammable products

**Specific use(s):**

Granulated fertilizer.

**Packaging material:**

Bags or Bulk

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering measures to reduce exposure:**

Ensure adequate ventilation.

**Occupational exposure controls****Personal protective equipment****Respiratory protection:**

Not applicable.

**Hand protection:**

PVC or other plastic material gloves.

**Eye/face protection**

Safety glasses.

**Skin and body protection:**

Not applicable.

**Hygiene measures**

Follow good housekeeping practices. When using, do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs.

**Exposure limit values***Sulphur, S*

France INRS (VME)

VME (poussières) = 10 mg/m<sup>3</sup>

*Copper sulphate, CuSO<sub>4</sub>*

Finland - Occupational Exposure Limits - 8 hour

Germany (DFG) - MAK

Sweden - OEL - 8 Hour

1 mg/m<sup>3</sup> TWA

0.1 mg/m<sup>3</sup> MAK

0.2 mg/m<sup>3</sup> LLV

1 mg/m<sup>3</sup> LLV

*Sodium molybdate, Na<sub>2</sub>MoO<sub>4</sub>+2H<sub>2</sub>O*

Belgium - 8 Hr VLE

5 mg/m<sup>3</sup> TWA

Czech Republic OEL	5 mg/m <sup>3</sup> TWA
Finland - Occupational Exposure Limits - 8 hour	6 mg/m <sup>3</sup>
France - Valeurs Limites d'exposition (VLE)	5 mg/m <sup>3</sup>
France INRS (VME)	5 mg/m <sup>3</sup> VME
Norway - 8 h:	5 mg/m <sup>3</sup> TWA
Portugal - TWAs	0.5 mg/m <sup>3</sup> TWA
Spain - Valores Limite Ambientales - VLE	5 mg/m <sup>3</sup> VLA-ED
Sweden - OEL - 8 Hour	10 mg/m <sup>3</sup> LLV
	5 mg/m <sup>3</sup> LLV

*Manganese sulphate, MnSO4*

Belgium - 8 Hr VLE	0.2 mg/m <sup>3</sup>
Czech Republic OEL	= 1 mg/m <sup>3</sup> TWA
Finland - Occupational Exposure Limits - 8 hour	0.5 mg/m <sup>3</sup>
Germany TRGS900:	0.5 mg/m <sup>3</sup> TWA
Germany (DFG) - MAK	0.5 mg/m <sup>3</sup> MAK
Netherlands - OEL - MACs:	1 mg/m <sup>3</sup>
Norway - 8 h:	2.5 mg/m <sup>3</sup>
Portugal - TWAs	0.2 mg/m <sup>3</sup> TWA
Spain - Valores Limite Ambientales - VLE	0.2 mg/m <sup>3</sup> VLA-ED
Sweden - OEL - 8 Hour	0.1 mg/m <sup>3</sup> LLV
	0.2 mg/m <sup>3</sup> LLV
UK EH40 WEL:	5 mg/m <sup>3</sup>

*Calcium sulphate dihydrate, CaSO4+2H2O*

Belgium - 8 Hr VLE	10 mg/m <sup>3</sup> TWA
France INRS (VME)	10 mg/m <sup>3</sup> VME
Germany TRGS900:	6 mg/m <sup>3</sup> TWA
Germany (DFG) - MAK	1.5 mg/m <sup>3</sup> MAK
	4 mg/m <sup>3</sup> MAK
Portugal - TWAs	10 mg/m <sup>3</sup> TWA
Spain - Valores Limite Ambientales - VLE	10 mg/m <sup>3</sup> VLA-ED
UK EH40 WEL:	10 mg/m <sup>3</sup> TWA
	4 mg/m <sup>3</sup> TWA

*Magnesium oxide, MgO*

Austria - MAKs	6 mg/m <sup>3</sup>
Belgium - 8 Hr VLE	10 mg/m <sup>3</sup>
Czech Republic OEL	5 mg/m <sup>3</sup> TWA
France - Valeurs Limites d'exposition (VLE)	10 mg/m <sup>3</sup>
France INRS (VME)	10 mg/m <sup>3</sup> VME
Germany (DFG) - MAK	6 mg/m <sup>3</sup>
Netherlands - OEL - MACs:	10 mg/m <sup>3</sup>
Norway - 8 h:	10 mg/m <sup>3</sup>
Portugal - TWAs	10 mg/m <sup>3</sup> TWA
Spain - Valores Limite Ambientales - VLE	10 mg/m <sup>3</sup> VLA-ED
UK EH40 WEL:	10 mg/m <sup>3</sup>

*Ammonium nitrate, NH4NO3*

Czech Republic OEL	= 10.0 mg/m <sup>3</sup> TWA
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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**General Information**

<b>Physical State:</b>	Solid
<b>Appearance:</b>	Resin Coated Granules
<b>Color:</b>	Brown, Greenish

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Odor:** No information available

### Important Health Safety and Environmental Information

**Solubility:** Coating not soluble, release nutrients through coating  
**Explosive properties:** Doesn't present explosion hazard  
**Flammability (solid, gas):** Non-flammable

### Other information

**Oxidising properties:** Not oxidizing . Incompatible with oxidising agents.

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under recommended storage conditions.

**Conditions to avoid:** Keep away from open flames, hot surfaces and sources of ignition.

**Materials to avoid:** Oxidizing agent.

**Hazardous decomposition products:** No decomposition if stored normally. Hazardous decomposition products: . Poisonous gasses / vapours.

## 11. TOXICOLOGICAL INFORMATION

### Component information

*Potassium nitrate, KNO<sub>3</sub>*

**LD<sub>50</sub>/oral/rat =** 3750mg/kg

*Sulphur, S*

**LD<sub>50</sub>/oral/rat =** > 2000 mg/kg

**LD<sub>50</sub>/dermal/rat =** > 2000 mg/kg

**LC<sub>50</sub>/inhalation/4h/rat =** > 5,4 mg/l

*Copper sulphate, CuSO<sub>4</sub>*

**LD<sub>50</sub>/oral/rat =** 960 mg/kg

*Sodium molybdate, Na<sub>2</sub>MoO<sub>4</sub>+2H<sub>2</sub>O*

**LD<sub>50</sub>/oral/rat =** 4000 mg/kg

*Manganese sulphate, MnSO<sub>4</sub>*

**LD<sub>50</sub>/oral/rat =** 9 g/kg

*Ammonium nitrate, NH<sub>4</sub>NO<sub>3</sub>*

**LD<sub>50</sub>/oral/rat =** 2410 mg/kg

### Product information

**LD<sub>50</sub>/oral/rat =** > 10 gr/kg

### Local effects

<b>Skin effects:</b>	May cause skin irritation in susceptible persons.
<b>Eye effects:</b>	Contact with eyes may cause irritation.
<b>Inhalation:</b>	May cause sensitization by inhalation.
<b>Ingestion:</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

## 12. ECOLOGICAL INFORMATION

### Product information

#### **Aquatic toxicity:**

No ecological information is known on the product.

### Component information

*Copper sulphate, CuSO<sub>4</sub>*

#### **Ecotoxicity effects**

EC50/48h/daphnia =0.8 mg/l

*Sodium molybdate, Na<sub>2</sub>MoO<sub>4</sub>+2H<sub>2</sub>O*

#### **Ecotoxicity effects**

LC50/96h/rainbow trout => 2800 mg/l

*Manganese sulphate, MnSO<sub>4</sub>*

#### **Ecotoxicity effects**

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

*Ammonium nitrate, NH<sub>4</sub>NO<sub>3</sub>*

#### **Ecotoxicity effects**

EC50/48h/daphnia =100 mg/l  
 LC50/96h/rainbow trout =10 mg/l  
 EC50/72h/algae = 74000 µg/l

## 13. DISPOSAL CONSIDERATIONS

<b>Waste Disposal Methods:</b>	Use up product completely. Packaging material is industrial waste.
<b>Contaminated packaging:</b>	Empty containers can be landfilled, when in compliance with the local regulations

## 14. TRANSPORT INFORMATION

### Product information

#### **Physical State:**

Solid

### ADR/RID

#### **UN-No:**

Not classified for transport

### IATA

#### **UN-No:**

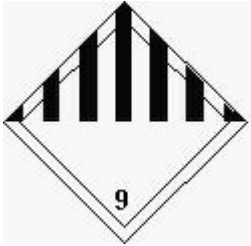
2071

**14. TRANSPORT INFORMATION**

<b>Proper shipping name:</b>	AMMONIUM NITRATE FERTILIZERS
<b>Hazard Class:</b>	9
<b>Packing group:</b>	III

**IMO / IMDG**

<b>UN-No:</b>	2071
<b>Proper shipping name:</b>	AMMONIUM NITRATE BASED FERTILIZER
<b>Hazard Class:</b>	9
<b>Packing group:</b>	III
<b>EmS:</b>	F-H / S-Q

**15. REGULATORY INFORMATION****Indication of danger:**

This product does not have to be classified according to the EU regulations.

**ICPE (FR):** Classified installation : article 1331, 1230

**Germany only**

Not applicable

**16. OTHER INFORMATION****Text of R Phrases mentioned in Section 3**

R 8 - Contact with combustible material may cause fire.

R22 - Harmful if swallowed.

R38 - Irritating to skin.

R43 - May cause sensitization by skin contact.

R60 - May impair fertility.

R61 - May cause harm to the unborn child.

R36/38 - Irritating to eyes and skin.

R48/20/22 - Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 16. OTHER INFORMATION

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

**Prepared by:** Regulatory Affairs Department.

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**End of Safety Data Sheet**