



Material Safety Data Sheet

According to EC Regulation 1907/2006

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

Identification of the substance or preparation

MSDS Ref. No.: 8841.02.01
Product name: Osmocote® Exact® Standard 5-6M
Synonyms: 15+9+12+2MgO+TE / 15+3.9+10.0+1.2Mg+TE

Use of the Substance/Preparation

Recommended use: Granulated fertilizer

Company/Undertaking Identification

• Everris International BV
Nijverheidsweg 1-5; 6422 PD Heerlen (NL)
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Emergency telephone number: +44 1235 239 670 (24h)

Email: INFO-MSDS@EVERRIS.com

2. HAZARDS IDENTIFICATION

Classification

Indication of danger:

This product does not have to be classified according to the EU regulations (1999/45/EC)

Most important hazards

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature of the preparation

Ingredients	CAS-No	Weight %	EC-No.	Classification
Ammonium nitrate, NH ₄ NO ₃	6484-52-2	> 25%	229-347-8	O;R08
Iron Oxide, Fe ₂ O ₃	1309-37-1	< 1%	215-168-2	NE
Copper sulphate, CuSO ₄	7758-98-7	< 1%	231-847-6	N;R50/53 Xi;R36/38 Xn;R22
Manganese sulphate, MnSO ₄	7785-87-7	< 1%	232-08-99	N;R51/53 Xn;R48/20/22
Sodium borate, Na ₂ B ₄ O ₇ ·10H ₂ O	1330-43-4	< 1%	215-540-4	Repr.Cat.2;R60-61
Sodium molybdate, Na ₂ MoO ₄ +2H ₂ O	7631-95-0	< 1%	231-298-2	NE
Magnesium oxide, MgO	1309-48-4	< 1%	215-171-9	NE

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.
- Eye contact:** Rinse eyes with water as a precaution. If eye irritation persists, consult a specialist.
- Notes to physician:** Artificial respiration and/or oxygen may be necessary

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media:**
Use dry chemical, CO₂, water spray or "alcohol" foam.
- Unsuitable extinguishing media:**
Not applicable
- 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.
- 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.

Hazchem code:

None

6. ACCIDENTAL RELEASE MEASURES**Personal precautions:**

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

Environmental precautions:

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

Methods for cleaning up:

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

Ammonium nitrate, NH₄NO₃

ACGIH:	N.A.
OSHA:	N.A.
Australia TWA	N.A.
Czech Republic OEL	= 10.0 mg/m ³ TWA

Iron Oxide, Fe₂O₃

ACGIH:	5 mg/m ³ TWA
OSHA:	10 mg/m ³ TWA
Australia TWA	5 mg/m ³ TWA
Belgium - 8 Hr VLE	5 mg/m ³ TWA
Czech Republic OEL	= 10.0 mg/m ³ TWA
Finland - Occupational Exposure Limits - 8 hour	5 mg/m ³ TWA
France INRS (VME)	5 mg/m ³ VME
Germany (DFG) - MAK	1.5 mg/m ³ MAK
Norway - 8 h:	3 mg/m ³ TWA
Portugal - TWAs	5 mg/m ³ TWA
Spain - Valores Limite Ambientales - VLE	5 mg/m ³ VLA-ED
Sweden - OEL - 8 Hour	3.5 mg/m ³ LLV
UK EH40 WEL:	1 mg/m ³ TWA 5 mg/m ³ TWA

Copper sulphate, CuSO₄

Australia TWA	N.A.
Finland - Occupational Exposure Limits - 8 hour	1 mg/m ³ TWA
Germany (DFG) - MAK	0.1 mg/m ³ MAK
Sweden - OEL - 8 Hour	0.2 mg/m ³ LLV 1 mg/m ³ LLV

Manganese sulphate, MnSO₄

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

Sodium borate, Na₂B₄O₇·10H₂O

ACGIH:	2 mg/m ³ TWA
Australia TWA	1 mg/m ³ TWA
Belgium - 8 Hr VLE	2 mg/m ³ TWA
France INRS (VME)	1 mg/m ³ VME
Norway - 8 h:	1 mg/m ³ TWA
Portugal - TWAs	2 mg/m ³ TWA
Spain - Valores Limite Ambientales - VLE	1 mg/m ³ VLA-ED
UK EH40 WEL:	1 mg/m ³ TWA

Sodium molybdate, Na₂MoO₄+2H₂O

ACGIH:	0.5 mg/m ³ TWA
OSHA:	5 mg/m ³ TWA
Australia TWA	5 mg/m ³ TWA
Belgium - 8 Hr VLE	5 mg/m ³ TWA

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

Magnesium oxide, MgO

ACGIH:	10 mg/m ³ TWA
OSHA:	15 mg/m ³ TWA total
Australia TWA	10 mg/m ³ TWA
Austria - MAKs	6 mg/m ³
Belgium - 8 Hr VLE	10 mg/m ³
Czech Republic OEL	5 mg/m ³ TWA
France - Valeurs Limites d'exposition (VLE)	10 mg/m ³
France INRS (VME)	10 mg/m ³ VME
Germany (DFG) - MAK	6 mg/m ³
Netherlands - OEL - MACs:	10 mg/m ³
Norway - 8 h:	10 mg/m ³
Portugal - TWAs	10 mg/m ³ TWA
Spain - Valores Limite Ambientales - VLE	10 mg/m ³ VLA-ED
UK EH40 WEL:	10 mg/m ³

9. PHYSICAL AND CHEMICAL PROPERTIES**General Information**

Physical State:	Solid
Appearance:	Resin Coated Granules
Color:	Brown, Greenish
Odor:	No information available

Important Health Safety and Environmental Information

Boiling point/range:	Not applicable
Melting point/range:	Not applicable
Solubility:	Coating not soluble, release nutrients through coating
Vapour pressure	Not applicable
Vapour density	Not applicable
Explosive properties:	Doesn't present explosion hazard
Flammability (solid, gas):	Non-flammable

Other information

Oxidising properties:	Incompatible with oxidising agents.
pH:	Not applicable
Bulk density:	900- 1100 kg/m ³

10. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
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Conditions to avoid	Keep away from open flames, hot surfaces and sources of ignition.
Incompatible materials	Combustible material. Oxidisers.
Hazardous decomposition products	No decomposition if stored normally. Danger of toxic gases in smoke in case of fire.
Hazardous reactions	None under normal use.

11. TOXICOLOGICAL INFORMATION

Component information

<i>Ammonium nitrate, NH₄NO₃</i>	
LD50/oral/rat =	2410 mg/kg
<i>Copper sulphate, CuSO₄</i>	
LD50/oral/rat =	960 mg/kg
<i>Manganese sulphate, MnSO₄</i>	
LD50/oral/rat =	9 g/kg
<i>Sodium molybdate, Na₂MoO₄+2H₂O</i>	
LD50/oral/rat =	4000 mg/kg

Product information

LD50/dermal/rabbit =	> 2000 mg/kg
LD50/oral/rat =	> 10 gr/kg

Local effects

Skin effects:	May cause skin irritation in susceptible persons
Eye effects:	May cause eye irritation with susceptible persons
Inhalation:	May cause sensitization by inhalation
Ingestion:	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

12. ECOLOGICAL INFORMATION

Product information

Aquatic toxicity:	No ecological information is available.
Ecotoxicity	No ecological information is known on the product
Persistence and degradability	No persistent or cumulative effects were observed
Bioaccumulative potential	Does not bioaccumulate
Mobility in soil	No information available

Component information*Ammonium nitrate, NH₄NO₃***Ecotoxicity effects**EC50/48h/daphnia =100 mg/l
LC50/96h/rainbow trout =100 mg/l
EC50/72h/algae =74000 µg/l*Copper sulphate, CuSO₄***Ecotoxicity effects**

EC50/48h/daphnia =0.8 mg/l

*Manganese sulphate, MnSO₄***Ecotoxicity effects**

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

*Sodium molybdate, Na₂MoO₄+2H₂O***Ecotoxicity effects**

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

13. DISPOSAL CONSIDERATIONS**Waste Disposal Methods:** Use up product completely. Packaging material is industrial waste.**Contaminated packaging:** 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:**

Not classified for transport

IMO / IMDG**UN-No:**

Not classified for transport

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

This product does not have to be classified according to the EU regulations (1999/45/EC)

15. REGULATORY INFORMATION

In accordance with local and national regulations

ICPE (FR): Classified installation : article 1331

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.

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.

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

Revision date: 23-Jun-2011

Prepared by: Regulatory Affairs Department.

End of Safety Data Sheet