



Material Safety Data Sheet

According to EC Directive 2001/58/EC

Print date: 14-Jun-2007

Revision Number: 4

Revision date: 14-Jun-2007

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

Identification of the substance or preparation

MSDS Ref. No.: 6652.02.04
Product name: Osmocote Exact Tablet 15+9+9 (7,5g) 8-9M
Synonyms: Osmocote Exact tablet 15+4.0+7.5 (7,5g) 8-9M

Use of the Substance/Preparation

Recommended use: Granulated fertilizer.

Company/Undertaking Identification

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

Emergency telephone number: • +44 (0)208 762 8322

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature of the preparation

Components	CAS-No	Weight %	EC-No.	Classification
Sodium molybdate, Na ₂ MoO ₄ +2H ₂ O	7631-95-0	< 1%	231-298-2	NE
Copper sulphate, CuSO ₄	7758-98-7	< 1%	231-847-6	N;R50/53 Xi;R36/38 Xn;R22
Potassium nitrate, KNO ₃	7757-79-1	10 - 25%	231-818-8	O;R08
Calcium sulphate dihydrate, CaSO ₄ +2H ₂ O	10101-41-4	1 - 5%	231-900-3	NE
Ironsulphate, FeSO ₄ +1H ₂ O	7720-78-7	< 1%	231-753-5	Xn;R22
Magnesiumoxide, MgO	1309-48-4	< 1%	215-171-9	NE
Manganese sulphate, MnSO ₄	7785-87-7	< 1%	232-08-99	N;R51/53 Xn;R48/20/22
Ammoniumnitrate, NH ₄ NO ₃	6484-52-2	> 25%	229-347-8	O;R08

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

3. HAZARDS IDENTIFICATION

Classification

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

Most important hazards

None

4. FIRST AID MEASURES

- General advice:** If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.
- Ingestion:** Rinse mouth. Do not induce vomiting without medical advice. If a person vomits when lying on his back, place him in the recovery position. Never give anything by mouth to an unconscious person.
- Inhalation:** Not applicable. Dusty conditions are unlikely if product is used as intended and product-coating remains intact. However, if prolonged inhalation of dust occurs, remove victim to fresh air.
- Skin contact:** If a person feels unwell or symptoms of skin irritation appear, consult a physician.
- Eye contact:** If eye irritation persists, consult a specialist.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Use dry chemical, CO₂, water spray or "alcohol" foam.

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

Product smoulders! In case of fire, cool with water or waterspray. Thermal decomposition can lead to release of irritating gases and vapours.

Special protective equipment for firefighters:

In the event of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

No conditions to be specially mentioned.

Environmental precautions:

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

Methods for cleaning up:

Use up product completely. Packaging material is industrial waste.

7. HANDLING AND STORAGE

Handling:

7. HANDLING AND STORAGE

Technical measures/precautions:	No special technical protective measures required.
Safe handling advice:	No special precautions required.
Storage:	
Technical measures/storage conditions:	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:	No information available
Specific use(s):	Granulated fertilizer. Tablet out of resin coated prills.
Packaging material:	Plastic bags, Cardboard box

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures to reduce exposure:	Ensure adequate ventilation.
<u>Occupational exposure controls</u>	
<u>Personal protective equipment</u>	
Respiratory protection:	Not applicable.
Hand protection:	PVC or other plastic material gloves.
Eye/face protection:	Not applicable.
Skin and body protection:	Usual safety precautions while handling the product will provide adequate protection against this potential effect.
Hygiene measures	Follow good housekeeping practices. When using, do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs.
<u>Exposure limit values</u>	
<u>Environmental exposure controls</u>	Do not allow material to contaminate ground water system.

Sodium molybdate, Na₂MoO₄·2H₂O

Austria - MAKs	5 mg/m ³ MAK
Belgium - 8 Hr VLE	5 mg/m ³ TWA
Czech Republic OEL	Listed
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
Netherlands - OEL - MACs:	5 mg/m ³ MAC
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

Copper sulphate, CuSO₄

Austria - MAKs	0.1 mg/m ³ MAK
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/m³ LLV
1 mg/m³ LLV

Calcium sulphate dihydrate, CaSO₄+2H₂O

Austria - MAKs
Belgium - 8 Hr VLE
France INRS (VME)
Germany TRGS900:
Germany (DFG) - MAK
Netherlands - OEL - MACs:
Portugal - TWAs
Spain - Valores Limite Ambientales - VLE
UK EH40 WEL:

6 mg/m³ MAK
10 mg/m³ TWA
10 mg/m³ VME
6 mg/m³ TWA
1.5 mg/m³ MAK
4 mg/m³ MAK
0.5 mg/m³ MAC
10 mg/m³ TWA
10 mg/m³ VLA-ED
10 mg/m³ TWA
4 mg/m³ TWA

Ironsulphate, FeSO₄+1H₂O

Belgium - 8 Hr VLE
Finland - Occupational Exposure Limits - 8 hour
Netherlands - OEL - MACs:
Norway - 8 h:
Portugal - TWAs
Spain - Valores Limite Ambientales - VLE
UK EH40 WEL:

1 mg/m³
1 mg/m³
1 mg/m³
0.01 mg/m³
1 mg/m³ TWA
1 mg/m³ VLA-ED
LTEL (8 hr TWA) 1 mg/m³
STEL (15 min) 2mg/m³

Magnesiumoxide, MgO

Austria - MAKs
Belgium - 8 Hr VLE
Czech Republic OEL
France - Valeurs Limites d'exposition (VLE)
France INRS (VME)
Germany (DFG) - MAK
Netherlands - OEL - MACs:
Norway - 8 h:
Portugal - TWAs
Spain - Valores Limite Ambientales - VLE
UK EH40 WEL:

6 mg/m³
10 mg/m³
Listed
10 mg/m³
10 mg/m³ VME
6 mg/m³
10 mg/m³
10 mg/m³
10 mg/m³ TWA
10 mg/m³ VLA-ED
10 mg/m³

Manganese sulphate, MnSO₄

Austria - MAKs
Belgium - 8 Hr VLE
Czech Republic OEL
Finland - Occupational Exposure Limits - 8 hour
Germany TRGS900:
Germany (DFG) - MAK
Netherlands - OEL - MACs:
Norway - 8 h:
Portugal - TWAs
Spain - Valores Limite Ambientales - VLE
Sweden - OEL - 8 Hour
UK EH40 WEL:

0.5 mg/m³ MAK
0.2 mg/m³
Listed
0.5 mg/m³
0.5 mg/m³ TWA
0.5 mg/m³ MAK
1 mg/m³
2.5 mg/m³
0.2 mg/m³ TWA
0.2 mg/m³ VLA-ED
0.1 mg/m³ LLV
0.2 mg/m³ LLV
5 mg/m³

Ammoniumnitrate, NH₄NO₃

Czech Republic OEL
Listed

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Physical State:	Solid
Appearance:	Tablet out of resin coated prills
Color:	Brown, Green
Odor:	No information available

Important Health Safety and Environmental Information

Flammability (solid, gas):	Non-flammable
Solubility:	Coating not soluble, release nutrients through coating

Other information

Bulk density:	No data available
----------------------	-------------------

10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage conditions.
Conditions to avoid:	No special storage conditions required.
Materials to avoid:	No information available
Hazardous decomposition products:	No decomposition if stored normally

11. TOXICOLOGICAL INFORMATION

Component information

<i>Sodium molybdate, Na₂MoO₄·2H₂O</i>	
LD50/oral/rat =	4000 mg/kg
<i>Copper sulphate, CuSO₄</i>	
LD50/oral/rat =	960 mg/kg
<i>Potassium nitrate, KNO₃</i>	
LD50/oral/rat =	3750mg/kg
<i>Ironsulphate, FeSO₄·1H₂O</i>	
LD50/oral/rat =	1389 mg/kg
<i>Manganese sulphate, MnSO₄</i>	
LD50/oral/rat =	9 g/kg
<i>Ammoniumnitrate, NH₄NO₃</i>	
LD50/oral/rat =	410 mg/kg

Product information

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****Water Endangering Class (WGK):** 1 (Scotts classification)**Component information***Sodium molybdate, Na₂MoO₄·2H₂O***Ecotoxicity effects** LC50/96h/rainbow trout => 2800 g/l*Copper sulphate, CuSO₄***Ecotoxicity effects** EC50/48h/daphnia =0.8 mg/l*Ironsulphate, FeSO₄·1H₂O***Ecotoxicity effects**
EC50/48h/daphnia = >100mg/l
LC50/96h/rainbow trout = >72.5mg/l (6d)
EC50/72h/algae = 22mg/l*Manganese sulphate, MnSO₄***Ecotoxicity effects** EC50/48h/daphnia => 100 mg/l*Ammoniumnitrate, NH₄NO₃***Ecotoxicity effects**
EC50/48h/daphnia =100 µg/l
LC50/96h/rainbow trout =10 µg/l
EC50/72h/algae = 74000 µg/l**13. DISPOSAL CONSIDERATIONS****Waste Disposal Methods:** Use up product completely. Packaging material is industrial waste.**Contaminated packaging:** Cardboard boxes can be transported/delivered by a registered waste carrier to local recycling facilities..

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.

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

16. OTHER INFORMATION

Text of R Phrases mentioned in Section 2

R 8 - Contact with combustible material may cause fire.

R22 - Harmful if swallowed.

R36/37/38 - Irritating to eyes, respiratory system and skin.

R52/53 - Harmful 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

Prepared by:

Regulatory Affairs Department.

This information contained herein is, to the best of Scott's 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 Scotts 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, Scotts 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