



Material Safety Data Sheet

According to EC Directive 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.: 6671.02.04
 Product name: Osmocote Exact Tablet 15+9+9+3MgO+TE (7,5 g) 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 (24h)

Email: INFO-MSDS@Scotts.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
Sodium molybdate, Na ₂ MoO ₄ +2H ₂ O	7631-95-0	< 1%	231-298-2	NE

Components	CAS-No	Weight %	EC-No.	Classification
Copper sulphate, CuSO ₄	7758-98-7	< 1%	231-847-6	N;R50/53 Xi;R36/38 Xn;R22
Iron-EDTA	239-8002-2	1 - 5%	239-802-2	NE
Boric acid, H ₃ BO ₃	10043-35-3	< 1%	233-139-2	NE
Iron sulphate, FeSO ₄ +1H ₂ O	7720-78-7	< 1%	231-753-5	Xn;R22
Magnesium oxide, MgO	1309-48-4	1 - 5%	215-171-9	NE
Manganese sulphate, MnSO ₄	7785-87-7	< 1%	232-08-99	N;R51/53 Xn;R48/20/22
Potassium nitrate, KNO ₃	7757-79-1	5 - 10%	231-818-8	O;R08
Calcium sulphate dihydrate, CaSO ₄ +2H ₂ O	10101-41-4	< 1%	231-900-3	NE
Ammonium nitrate, NH ₄ NO ₃	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:** If symptoms persist, call a physician.
- 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:

Water.

Unsuitable extinguishing media:

Dry powder, Sand, Foam

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

Thermal decomposition can lead to release of irritating gases and vapours. 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, 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:**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.

Occupational exposure controls**Personal protective equipment****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.

Exposure limit values**Environmental exposure controls**

Do not allow material to contaminate ground water system.

Sodium molybdate, Na₂MoO₄·2H₂O

Finland - Occupational Exposure Limits - 8 hour	6 mg/m ³
France - Valeurs Limites d'exposition (VLE)	5 mg/m ³
<i>Copper sulphate, CuSO₄</i>	
Finland - Occupational Exposure Limits - 8 hour	1 mg/m ³ TWA
<i>Boric acid, H₃BO₃</i>	
Belgium - 8 Hr VLE	2 mg/m ³ TWA
Germany TRGS900:	0.5 mg/m ³ TWA
Portugal - TWAs	2 mg/m ³ TWA
<i>Iron sulphate, FeSO₄+1H₂O</i>	
Belgium - 8 Hr VLE	1 mg/m ³
Finland - Occupational Exposure Limits - 8 hour	1 mg/m ³
Netherlands - OEL - MACs:	1 mg/m ³
Norway - 8 h:	0.01 mg/m ³
UK EH40 WEL:	LTEL (8 hr TWA) 1 mg/m ³ STEL (15 min) 2mg/m ³
<i>Magnesium oxide, MgO</i>	
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
<i>Manganese sulphate, MnSO₄</i>	
Belgium - 8 Hr VLE	0.2 mg/m ³
Finland - Occupational Exposure Limits - 8 hour	0.5 mg/m ³
Netherlands - OEL - MACs:	1 mg/m ³
Norway - 8 h:	2.5 mg/m ³
UK EH40 WEL:	5 mg/m ³
<i>Calcium sulphate dihydrate, CaSO₄+2H₂O</i>	
France INRS (VME)	10 mg/m ³ VME
Germany (DFG) - MAK	1.5 mg/m ³ MAK 4 mg/m ³ MAK
Netherlands - OEL - MACs:	0.5 mg/m ³ MAC
Portugal - TWAs	10 mg/m ³ TWA
UK EH40 WEL:	10 mg/m ³ TWA 4 mg/m ³ TWA
<i>Ammonium nitrate, NH₄NO₃</i>	
Czech Republic OEL	= 10.0 mg/m ³ TWA

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

Bulk density: No data available
Solubility: Coating not soluble, release nutrients through coating
Flammability (solid, gas): Non-flammable

Other information

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

Sodium molybdate, Na₂MoO₄+2H₂O
LD50/oral/rat = 4000 mg/kg

Copper sulphate, CuSO₄
LD50/oral/rat = 960 mg/kg

Iron sulphate, FeSO₄+1H₂O
LD50/oral/rat = 1389 mg/kg

Manganese sulphate, MnSO₄
LD50/oral/rat = 9 g/kg

Potassium nitrate, KNO₃
LD50/oral/rat = 3750mg/kg

Ammonium nitrate, NH₄NO₃
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

Iron sulphate, 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

Ammonium nitrate, 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: N.A.

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 1230, 1331

16. OTHER INFORMATION

Text of R Phrases mentioned in Section 3

R 8 - Contact with combustible material may cause fire.

R22 - Harmful if swallowed.

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.

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.

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End of Safety Data Sheet