



Material Safety Data Sheet

According to EC Directive 2001/58/EC

Print date: 07-May-2007

Revision Number: 2

Revision date: 07-May-2007

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

Identification of the substance or preparation

MSDS Ref. No.: 4198.01.01
Product name: Sierrablen Plus 24+5+8+2MgO

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
Calcium sulphate dihydrate, CaSO ₄ +2H ₂ O	10101-41-4	< 1%	231-900-3	NE
Ironsulphate, FeSO ₄ +1H ₂ O	7720-78-7	< 1%	231-753-5	Xn;R22
Manganese sulphate, MnSO ₄	7785-87-7	< 1%	232-08-99	N;R51/53 Xn;R48/20/22
Magnesiumoxide, MgO	1309-48-4	1 - 5%	215-171-9	NE
Sulphur, S	7704-34-9	1 - 5%	231-722-6	F; R11 Xi;R36/37/38
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

3. HAZARDS IDENTIFICATION

Most important hazards

None

4. FIRST AID MEASURES

- General advice:** If you feel unwell, seek medical advice (show the label where possible).
- Ingestion:** 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. In case of respiratory difficulties practice oxygenotherapy. Possible symptoms are nausea and/or vomiting.
- Inhalation:** In case of shortness of breath, give oxygen. Possible symptoms are coughing and/or dyspnoea. Move 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 thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.
- Protection of first-aiders:** Low hazard for usual industrial or commercial handling.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Coordinate fire extinguishing measures to fire in surrounding area.

Unsuitable extinguishing media:

Not applicable

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.

Special protective equipment for firefighters:

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Ensure adequate ventilation. Avoid dust formation. Use personal protective equipment. Wear personal protective equipment.

Environmental precautions:

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

Methods for cleaning up:

Shovel or sweep up. Do not create a powder cloud by using a brush or compressed air. Prevent product from entering drains.

7. HANDLING AND STORAGE

Handling:

7. HANDLING AND STORAGE

Technical measures/precautions:	No special technical protective measures required.
Safe handling advice:	Keep away from open flames, hot surfaces and sources of ignition.
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:	Not applicable
Specific use(s):	Granulated fertilizer.

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:	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

Calcium sulphate dihydrate, CaSO₄+2H₂O

Austria - MAKs	6 mg/m ³ MAK
Belgium - 8 Hr VLE	10 mg/m ³ TWA
France INRS (VME)	10 mg/m ³ VME
Germany TRGS900:	6 mg/m ³ TWA
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
Spain - Valores Limite Ambientales - VLE	10 mg/m ³ VLA-ED
UK EH40 WEL:	10 mg/m ³ TWA
	4 mg/m ³ TWA

Ironsulphate, FeSO₄+1H₂O

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
Portugal - TWAs	1 mg/m ³ TWA

Spain - Valores Limite Ambientales - VLE
UK EH40 WEL:

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

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

Ammoniumnitrate, NH4NO3

Czech Republic OEL

Listed

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Physical State: Solid
Appearance: Granular
Color: Brown, Pink, Greenish
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: 800 - 1100 kg/m³
Decomposition temperature: > 150°C

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:	Combustible material.
Hazardous decomposition products:	No decomposition if stored normally Thermal decomposition can lead to release of irritating gases and vapours

11. TOXICOLOGICAL INFORMATION

Component information

Ironsulphate, FeSO₄·1H₂O

LD50/oral/rat = 1389 mg/kg

Manganese sulphate, MnSO₄

LD50/oral/rat = 9 g/kg

Sulphur, S

LD50/oral/rat = > 2200 mg/kg

LD50/dermal/rat = > 2000 mg/kg

LC50/inhalation/4h/rat = > 5,4 mg/l

Ammoniumnitrate, NH₄NO₃

LD50/oral/rat = 410 mg/kg

Product information

Local effects

Skin effects:	May cause skin irritation in susceptible persons.
Eye effects:	Contact with eyes may cause irritation.
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

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

No ecological information is known on the product nor on any of its ingredients

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.

15. REGULATORY INFORMATION

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.

R11 - Highly flammable.

R22 - Harmful if swallowed.

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

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

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

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