



# Material Safety Data Sheet

According to EC Directive 2001/58/EC

Print date: 14-Jun-2007

Revision Number: 2

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

### Identification of the substance or preparation

MSDS Ref. No.: 6646.02.04  
Product name: Sierrablen Flora Tablet 15+9+9+3MgO  
Synonyms: Sierrablen 15+9+9+3MgO

### Use of the Substance/Preparation

Recommended use: Granulated fertilizer.

### Company/Undertaking Identification

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## 2. 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	10 - 25%	231-818-8	O;R08
Calcium sulphate dihydrate, CaSO <sub>4</sub> +2H <sub>2</sub> O	10101-41-4	1 - 5%	231-900-3	NE
Ironsulphate, FeSO <sub>4</sub> +1H <sub>2</sub> O	7720-78-7	< 1%	231-753-5	Xn;R22
Magnesiumoxide, MgO	1309-48-4	1 - 5%	215-171-9	NE
Ammoniumnitrate, NH <sub>4</sub> NO <sub>3</sub>	6484-52-2	10 - 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

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### 3. HAZARDS IDENTIFICATION

None

### 4. FIRST AID MEASURES

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

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:**

Water. Water spray. High volume water jet.

**Unsuitable extinguishing media:**

No information available, Dry powder, Sand, 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.

**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.

### 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.

<b>Safe handling advice:</b>	Keep away from flammable material. When using do not eat or drink.
<b>Storage:</b>	
<b>Technical measures/storage conditions:</b>	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 .
<b>Incompatible products:</b>	Oxidising and spontaneously flammable products
<b>Specific use(s):</b>	Granulated fertilizer.
<b>Packaging material:</b>	Bags or Bulk

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering measures to reduce exposure:** Ensure adequate ventilation.

### Occupational exposure controls

#### Personal protective equipment

<b>Respiratory protection:</b>	Not applicable.
<b>Hand protection:</b>	PVC or other plastic material gloves.
<b>Eye/face protection:</b>	Safety glasses.
<b>Skin and body protection:</b>	Not applicable.
<b>Hygiene measures</b>	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, CaSO<sub>4</sub>+2H<sub>2</sub>O*

Austria - MAKs	6 mg/m <sup>3</sup> MAK
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
Netherlands - OEL - MACs:	0.5 mg/m <sup>3</sup> MAC
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

#### *Ironsulphate, FeSO<sub>4</sub>+1H<sub>2</sub>O*

Belgium - 8 Hr VLE	1 mg/m <sup>3</sup>
Finland - Occupational Exposure Limits - 8 hour	1 mg/m <sup>3</sup>
Netherlands - OEL - MACs:	1 mg/m <sup>3</sup>
Norway - 8 h:	0.01 mg/m <sup>3</sup>
Portugal - TWAs	1 mg/m <sup>3</sup> TWA
Spain - Valores Limite Ambientales - VLE	1 mg/m <sup>3</sup> VLA-ED
UK EH40 WEL:	LTEL (8 hr TWA) 1 mg/m <sup>3</sup>
	STEL (15 min) 2mg/m <sup>3</sup>

*Magnesiumoxide, MgO*

Austria - MAKs	6 mg/m <sup>3</sup>
Belgium - 8 Hr VLE	10 mg/m <sup>3</sup>
Czech Republic OEL	Listed
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>

*Ammoniumnitrate, NH<sub>4</sub>NO<sub>3</sub>*

Czech Republic OEL	Listed
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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**General Information**

<b>Physical State:</b>	Solid
<b>Appearance:</b>	Tablet out of resin coated prills
<b>Color:</b>	Brown, Greenish
<b>Odor:</b>	No information available

**Important Health Safety and Environmental Information**

<b>Flammability (solid, gas):</b>	Non-flammable
<b>Explosive properties:</b>	Doesn't present explosion hazard
<b>Oxidising properties:</b>	Incompatible with oxidising agents.
<b>Solubility:</b>	Coating not soluble, release nutrients through coating

**Other information**

<b>Decomposition temperature:</b>	> 150°C
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## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under recommended storage conditions.
<b>Conditions to avoid:</b>	Keep away from open flames, hot surfaces and sources of ignition.
<b>Materials to avoid:</b>	Strong oxidising agents.
<b>Hazardous decomposition products:</b>	No decomposition if stored normally Thermal decomposition can lead to release of irritating gases and vapours

## 11. TOXICOLOGICAL INFORMATION

**Component information**

*Potassium nitrate, KNO<sub>3</sub>***LD50/oral/rat =** 3750mg/kg*Ironsulphate, FeSO<sub>4</sub>+1H<sub>2</sub>O***LD50/oral/rat =** 1389 mg/kg*Ammoniumnitrate, NH<sub>4</sub>NO<sub>3</sub>***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:** 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****Aquatic toxicity:**

No ecological information is known on the product

**Component information***Ironsulphate, FeSO<sub>4</sub>+1H<sub>2</sub>O***Ecotoxicity effects**EC50/48h/daphnia = >100mg/l  
LC50/96h/rainbow trout = >72.5mg/l (6d)  
EC50/72h/algae = 22mg/l*Ammoniumnitrate, NH<sub>4</sub>NO<sub>3</sub>***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:** 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.

**ICPE (FR):** Classified installation : article 55

## 16. OTHER INFORMATION

### Text of R Phrases mentioned in Section 2

R 8 - Contact with combustible material may cause fire.

R22 - Harmful if swallowed.

### **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**