



# Material Safety Data Sheet

According to EC Directive 2001/58/EC

Print date: 07-Mar-2007\*\*\*

Revision Number: 1

Revision date: 23-Mar-2006

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

### Identification of the substance or preparation

MSDS Ref. No.: 2017.02.01  
Product name: Universol 15+0+19+9CaO+2MgO  
Synonyms: Universol White

### Use of the Substance/Preparation

Recommended use: Water soluble fertilizer.

### Company/Undertaking Identification

• Scotts International BV  
Nijverheidsweg 1-5  
6422 PD Heerlen (NL)  
Tel: ++31 (0) 45-5609100  
Fax: ++31 (0) 45-5609190  
• +44 (0)208 762 8322

Emergency telephone number:

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### Chemical nature of the preparation

| Components   | CAS-No     | Weight % | EC-No.    | Classification  |
|--|------------|----------|-----------|-----------------|
| Sodium molybdate, Na <sub>2</sub> MoO <sub>4</sub> +2H <sub>2</sub> O              | 7631-95-0  | < 1%     | 231-298-2 | NE              |
| Calcium nitrate, Ca(NO <sub>3</sub> ) <sub>2</sub>                                 | 13477-34-4 | > 25%    | 233-332-1 | O;R08<br>Xi;R36 |
| Magnesiumnitrate hexahydrate, Mg(NO <sub>3</sub> ) <sub>2</sub> +6H <sub>2</sub> O | 13446-18-9 | 10 - 25% | 233-826-7 | O;R08           |
| Potassium nitrate, KNO <sub>3</sub>  | 7757-79-1  | > 25%    | 231-818-8 | O;R08           |
| Ammoniumnitrate, NH <sub>4</sub> NO <sub>3</sub>                                   | 6484-52-2  | 5 - 10%  | 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 classified and labelled in accordance with Directive 1999/45/EC  
O - Oxidizing

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### 3. HAZARDS IDENTIFICATION

**Most important hazards**

Contact with combustible material may cause fire.

### 4. FIRST AID MEASURES

- General advice:** In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- Ingestion:** Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Possible symptoms are nausea and/or vomiting. 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:** In the case of inhalation of aerosol/mist consult a physician if necessary. Possible symptoms are coughing and/or dyspnoea. If symptoms persist, call a physician.
- Skin contact:** Rinse with plenty of water. If a person feels unwell or symptoms of skin irritation appear, consult a physician.
- Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Keep eye wide open while rinsing. Continue rinsing eyes during transport to hospital.
- Protection of first-aiders:** Use personal protective equipment.

### 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:**

Not combustible. Danger of toxic gases in smoke in case of fire.

**Special protective equipment for firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**Specific methods:**

Dike and collect water used to fight fire

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**

Avoid dust formation. Ensure adequate ventilation. Sweep-up to prevent slipping hazard. Avoid contact with eyes.

**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.

## 7. HANDLING AND STORAGE

**Handling:****Technical measures/precautions:**

Ensure adequate ventilation. Avoid dust formation.

**Safe handling advice:**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes.

**Storage:****Technical measures/storage conditions:**

Keep containers dry and tightly closed to avoid moisture absorption and contamination. 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:**Keep away from:  
Flammable materials**Specific use(s):**

Water soluble fertilizer.

**Packaging material:  
VCI (Germany)**Plastic bags  
5.1 B

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering measures to reduce exposure:**

Ensure adequate ventilation.

**Occupational exposure controls****Personal protective equipment****Respiratory protection:**

In case of insufficient ventilation wear suitable respiratory equipment.

**Hand protection:**

PVC or other plastic material gloves.

**Eye/face protection:**

Not required.

**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****Environmental exposure controls**

Avoid dust formation.

*Sodium molybdate, Na<sub>2</sub>MoO<sub>4</sub>+2H<sub>2</sub>O***Austria - MAKs**15 mg/m<sup>3</sup> MAK  
5 mg/m<sup>3</sup> MAK**Belgium - 8 Hr VLE**5 mg/m<sup>3</sup> VLE**Czech Republic OEL**

Listed

**Finland - Occupational Exposure Limits - 8 hour**6 mg/m<sup>3</sup>**France - Valeurs Limites d'exposition (VLE)**5 mg/m<sup>3</sup>**France INRS (VME)**5 mg/m<sup>3</sup> VME**Netherlands - OEL - MACs:**5 mg/m<sup>3</sup> MAC

|  |  |
|--|--|
| Norway - 8 h:                            | 5 mg/m <sup>3</sup> TWA  |
| Portugal - TWAs                          | 0.5 mg/m <sup>3</sup> TWA<br>10 mg/m <sup>3</sup> TWA<br>3 mg/m <sup>3</sup> TWA |
| Spain - Valores Limite Ambientales - VLE | 5 mg/m <sup>3</sup> VLA-ED   |
| Sweden - OEL - 8 Hour                    | 10 mg/m <sup>3</sup> LLV<br>5 mg/m <sup>3</sup> LLV                              |

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

Czech Republic OEL

Listed

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### General Information

|                        |                           |
|------------------------|---------------------------|
| <b>Physical State:</b> | Solid                     |
| <b>Appearance:</b>     | Prills, flakes and powder |
| <b>Color:</b>          | White                     |
| <b>Odor:</b>           | Not significant           |

### Important Health Safety and Environmental Information

|                                   |                                |
|-----------------------------------|--------------------------------|
| <b>pH:</b>                        | 2 - 3 (1 % solution in water.) |
| <b>Flammability (solid, gas):</b> | Non-flammable                  |
| <b>Solubility:</b>                | Soluble                        |

### Other information

|                                   |                              |
|-----------------------------------|------------------------------|
| <b>Bulk density:</b>              | 900 - 1100 kg/m <sup>3</sup> |
| <b>Decomposition temperature:</b> | > 150 °C                     |

## 10. STABILITY AND REACTIVITY

|  |  |
|--|--|
| <b>Stability:</b>                        | Stable under recommended storage conditions.   |
| <b>Conditions to avoid:</b>              | Avoid dust formation. Burning produces obnoxious and toxic fumes.  |
| <b>Materials to avoid:</b>               | No information available   |
| <b>Hazardous decomposition products:</b> | No decomposition if stored normally<br>Thermal decomposition can lead to release of irritating gases and vapours |

## 11. TOXICOLOGICAL INFORMATION

### Component information

Sodium molybdate, Na<sub>2</sub>MoO<sub>4</sub>·2H<sub>2</sub>OLD<sub>50</sub>/oral/rat = 4000 mg/kgPotassium nitrate, KNO<sub>3</sub>LD<sub>50</sub>/oral/rat = 3750mg/kg

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

LD50/oral/rat = 410 mg/kg

**Product information****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, Na<sub>2</sub>MoO<sub>4</sub>+2H<sub>2</sub>O***Ecotoxicity effects** LC50/96h/rainbow trout => 2800 g/l*Calcium nitrate, Ca(NO<sub>3</sub>)<sub>2</sub>***Ecotoxicity effects** LC50/96h/rainbow trout =2400 mg/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

**14. TRANSPORT INFORMATION****ADR/RID**

**UN-No:** 1479  
**Proper shipping name:** Oxidizing solid, N.O.S..  
**Hazard Class:** 5.1  
**Packing group:** PG III  
**Description:** Potassiumnitrate, Ammoniumnitrate

**IATA**

**UN-No:** N.A.

**IMO / IMDG**

**UN-No:** 1479  
**Proper shipping name:** Oxidizing solid, N.O.S..  
**Hazard Class:** 5.1  
**Packing group:** PG III  
**Description:** Potassiumnitrate, Ammoniumnitrate

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

O - Oxidizing.

**R -phrase(s)**

R 8 - Contact with combustible material may cause fire.

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

**16. OTHER INFORMATION****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**