



# Material Safety Data Sheet

According to EC Directive 2001/58/EC

Print date: 03-Jul-2007\*\*\*

Revision Number: 4

Revision date: 27-Sep-2005

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

### Identification of the substance or preparation

MSDS Ref. No.: 2010.02.01  
Product name: Universol Green  
Synonyms: Universol 23+6+10+2MgO

### 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

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
Potassium nitrate, KNO <sub>3</sub>	7757-79-1	10 - 25%	231-818-8	O;R08
Sodium molybdate, Na <sub>2</sub> MoO <sub>4</sub> +2H <sub>2</sub> O	7631-95-0	< 1%	231-298-2	NE
Ammonium nitrate, NH <sub>4</sub> NO <sub>3</sub> ***	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

<b>General advice:</b>	Check the victim's state of consciousness, breathing and pulse; put in emergency position or revive.
<b>Ingestion:</b>	Possible symptoms are nausea and/or vomiting. Clean mouth with water and drink afterwards plenty of water. If a person vomits when lying on his back, place him in the recovery position. Never give anything by mouth to an unconscious person. Consult a physician if necessary.
<b>Inhalation:</b>	Possible symptoms are coughing and/or dyspnoea. If not breathing, give artificial respiration. If symptoms persist, call a physician.
<b>Skin contact:</b>	If skin irritation persists, call a physician.
<b>Eye contact:</b>	Rinse thoroughly with plenty of water, also under the eyelids. 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:**  
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:**  
Danger of toxic gases in smoke in case of fire\*\*\*

**Special protective equipment for firefighters:**  
The product is not flammable. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate area and fight fire from a safe distance.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**  
Sweep-up to prevent slipping hazard. Use personal protective equipment.

**Environmental precautions:**  
Prevent product from entering drains. Do not contaminate surface water.

**Methods for cleaning up:**  
Sweep up and shovel.

## 7. HANDLING AND STORAGE

### Handling:

**Technical measures/precautions:** Provide appropriate exhaust ventilation at places where dust is formed.

**Safe handling advice:** Avoid dust formation. 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:**

No information available

**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 disposable gloves.

**Eye/face protection:**

Safety glasses.

**Skin and body protection:**

Wear suitable protective clothing.

**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**

Prevent product from entering drains.

*Sodium molybdate, Na<sub>2</sub>MoO<sub>4</sub>·2H<sub>2</sub>O*

**Austria - MAKs**

5 mg/m<sup>3</sup> MAK\*\*\*

**Belgium - 8 Hr VLE**

5 mg/m<sup>3</sup> TWA\*\*\*

**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\*\*\*

**Spain - Valores Limite Ambientales - VLE**

5 mg/m<sup>3</sup> VLA-ED\*\*\*

**Sweden - OEL - 8 Hour**

10 mg/m<sup>3</sup> LLV

5 mg/m<sup>3</sup> LLV\*\*\*

*Ammonium nitrate, NH<sub>4</sub>NO<sub>3</sub>*

**Czech Republic OEL**

Listed\*\*\*

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### General Information

**Physical State:** Solid  
**Appearance:** Powder  
**Color:** Off-white\*\*\*  
**Odor:** No information available

### Important Health Safety and Environmental Information

**Solubility:** Completely soluble in water

### Other information

**Bulk density:** 900 - 1000 kg/m<sup>3</sup>\*\*\*

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under recommended storage conditions.

**Conditions to avoid:** Keep away from open flames, hot surfaces and sources of ignition. Burning produces obnoxious and toxic fumes.

**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

*Potassium nitrate, KNO<sub>3</sub>*  
**LD50/oral/rat =** 3750mg/kg

*Sodium molybdate, Na<sub>2</sub>MoO<sub>4</sub>·2H<sub>2</sub>O*  
**LD50/oral/rat =** 4000 mg/kg

*Ammonium nitrate, 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

*Ammonium nitrate, 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:** 1479  
**Proper shipping name:** Oxidizing solid, N.O.S..  
**Hazard Class:** 5.1  
**Packing group:** 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:** III  
**Description:** Potassiumnitrate, Ammoniumnitrate



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

**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**