



Material Safety Data Sheet

According to EC Regulation 1907/2006

Print date: 15-Jun-2011

Revision Number: 1

Revision date: 04-Mar-2008

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

Identification of the substance or preparation

MSDS Ref. No.: 2097.03.02
 Product name: Agroleaf® Power 15+10+31
 Synonyms: Agroleaf 15+4.4+24.9+TE

Use of the Substance/Preparation

Recommended use: Water soluble fertilizer

Company/Undertaking Identification

• Everris International BV
 Nijverheidsweg 1-5; 6422 PD Heerlen (NL)
 Tel: ++31 (0) 45-5609100; Fax: ++31 (0) 45-5609190

Emergency telephone number: • +44 1235 239 670 (24h)

Email: INFO-MSDS@EVERRIS.com

2. HAZARDS IDENTIFICATION

Classification

The product is classified and labelled in accordance with Directive 1999/45/EC
 O - Oxidizing

Most important hazards

Contact with combustible material may cause fire.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature of the preparation

Components	CAS-No	Weight %	EC-No.	Classification
Boric acid, H ₃ BO ₃	10043-35-3	< 1%	233-139-2	Repr.Cat.2;R60-61
Copper-EDTA	14025-15-1	< 1%	237-864-5	Xn;R22
Manganese-EDTA	15375-84-5	< 1%	239-407-5	NE
Sodium molybdate, Na ₂ MoO ₄ +2H ₂ O	7631-95-0	< 1%	231-298-2	NE

Components	CAS-No	Weight %	EC-No.	Classification
Potassium nitrate, KNO ₃	7757-79-1	> 25%	231-818-8	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:	Check the casualty's state of consciousness, breathing and pulse; put in emergency position or revive.
Ingestion:	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. Do not induce vomiting without medical advice. Consult a physician if necessary.
Inhalation:	In the case of inhalation of aerosol/mist consult a physician if necessary. Possible symptoms are coughing and/or dyspnoea. If breathing is difficult, give oxygen. Move to fresh air.
Skin contact:	If skin irritation persists, call a physician.
Eye contact:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Protection of first-aiders:	Avoid contact with eyes. 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:

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:

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.

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:

Keep away from:

Flammable materials

Water soluble fertilizer.

Plastic bags

5.1B

Specific use(s):**Packaging material:****VCI (Germany)**

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

Tightly fitting safety goggles.

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.

Boric acid, H3BO3

Belgium - 8 Hr VLE

2 mg/m³ TWA

Germany TRGS900:

Portugal - TWAs

0.5 mg/m³ TWA

2 mg/m³ TWA

Copper-EDTA

Finland - Occupational Exposure Limits - 8 hour 1 mg/m³ TWA

Manganese-EDTA

Belgium - 8 Hr VLE 0.2 mg/m³ TWA
Czech Republic OEL 1 mg/m³ TWA

Sodium molybdate, Na₂MoO₄·2H₂O

Belgium - 8 Hr VLE 5 mg/m³ TWA
Czech Republic OEL 5 mg/m³ TWA
Finland - Occupational Exposure Limits - 8 hour 6 mg/m³
France - Valeurs Limites d'exposition (VLE) 5 mg/m³
France INRS (VME) 5 mg/m³ VME
Norway - 8 h: 5 mg/m³ TWA
Portugal - TWAs 0.5 mg/m³ TWA
Spain - Valores Limite Ambientales - VLE 5 mg/m³ VLA-ED
Sweden - OEL - 8 Hour 10 mg/m³ LLV
5 mg/m³ LLV

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
Water solubility: +/- 30 - 45 kg/100L

Other information

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

Boric acid, H₃BO₃
LD₅₀/oral/rat = > 3500 mg/kg

Copper-EDTA

LD50/oral/rat = > 1000 mg/kg

Sodium molybdate, Na₂MoO₄+2H₂O

LD50/oral/rat = 4000 mg/kg

Potassium nitrate, KNO₃

LD50/oral/rat = 3750mg/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, Na₂MoO₄+2H₂O

Ecotoxicity effects LC50/96h/rainbow trout => 2800 mg/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: PG III
Description: Potassiumnitrate

14. TRANSPORT INFORMATION**IATA**

UN-No: 1479
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IMO / IMDG

UN-No: 1479
Proper shipping name: Oxidizing solid, N.O.S.
Hazard Class: 5.1
Packing group: PG III
Description: Potassiumnitrate
EmS: F-A / S-Q

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

O - Oxidizing.

**R -phrase(s)**

R 8 - Contact with combustible material may cause fire.

16. OTHER INFORMATION**Text of R Phrases mentioned in Section 3**

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