

Safety Data Sheet

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Version: 9

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name Osmocote PrePlant 17-8-10+2MgO+TE
Product Code: 87570225EB
Pure substance/mixture Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Fertilizer (PC12).
Uses Advised Against: Consumer use [SU 21].

1.3. Details of the supplier of the safety data sheet

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

For further information, please contact: INFO-MSDS@EVERRIS.COM.

1.4. Emergency telephone number: IN CASE OF AN EMERGENCY CALL: +44 1235 239 670 (24h).

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Mixture

Regulation (EC) No 1272/2008 (CLP)

| | |
|---------------------------------|---------------------|
| Chronic aquatic toxicity | Category 3 - (H412) |
|---------------------------------|---------------------|

2.2. Label elements

Hazard Statements:

H412 - Harmful to aquatic life with long lasting effects

EU Specific Hazard Statements:

EUH204 - Contains isocyanates. May produce an allergic reaction

Other hazards (UN-GHS)

Harmful to aquatic life

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

| Chemical Name | EC-No. | CAS No | Weight % | Classification according Regulation (EC) 1272/2008 [CLP] | REACH registration number |
|--|-----------|-----------|----------|--|---------------------------|
| Ammonium nitrate; NH ₄ NO ₃ | 229-347-8 | 6484-52-2 | 40 - 65% | Eye Irrit. 2 (H319) Ox. Sol. 3 (H272) | 01-2119490981-27 |
| Iron sulphate; FeSO ₄ +1H ₂ O | 231-753-5 | 7720-78-7 | 0.1 - 1% | Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H302) | 01-2119513203-57 |
| Copper sulphate anhydrous; CuSO ₄ | 231-847-6 | 7758-98-7 | 0.1 - 1% | Eye Dam. 1 (H318) Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) | 01-2119520566-40 |
| Manganese sulphate; MnSO ₄ +1H ₂ O | 232-08-99 | 7785-87-7 | 0.1 - 1% | STOT RE 2 (H373) | 01-2119456624-35 |

| | | | | | |
|--|--|--|--|---|--|
| | | | | Eye Dam. 1 (H318) Aquatic Chronic 2 (H411) | |
|--|--|--|--|---|--|

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

| | |
|------------------------|--|
| General Advice: | First aid measures should be executed by trained personnel only. |
| Inhalation | If not breathing, give artificial respiration. If symptoms persist, call a physician. If fumes from reactions are inhaled, move to fresh air immediately. |
| Skin Contact: | If skin irritation persists, call a physician. |
| Eye Contact: | Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist. |
| Ingestion: | Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. |

4.2. Most important symptoms and effects, both acute and delayed

None under normal processing

4.3. Indication of any immediate medical attention and special treatment needed

None under normal processing.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media: Water.

Unsuitable Extinguishing Media: High volume water jet. Dry powder. Sand. Foam.

5.2. Special hazards arising from the substance or mixture

In case of fire, the product will smoulder even without the presence of external oxygen. In these conditions the product will show self sustaining decomposition. The best method to extinguish the fire is to cool the decomposition front with water. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Hazardous Combustion Products:

Carbon oxides. Phosphorus oxides. Ammonia. Nitrogen oxides (NOx).

5.3. Advice for firefighters

Coordinate fire extinguishing measures to fire in surrounding area. In the event of fire and/or explosion do not breathe fumes. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray to cool fire exposed surfaces.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Wear personal protective equipment. Evacuate personnel to safe areas.

For Emergency Responders: Use personal protection recommended in Section 8.

6.2. Environmental precautions

Do not allow material to contaminate ground water system.

6.3. Methods and material for containment and cleaning up

Methods for Containment: Prevent further leakage or spillage if safe to do so.

Methods for Cleanup: Take up mechanically and collect in suitable container for disposal.

6.4. Reference to other sections

§ 8, 12, 13.

Section 7: HANDLING AND STORAGE**7.1. Precautions for safe handling**

General hygiene considerations:

Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/storage conditions:

Keep container tightly closed in a dry and well-ventilated place. For quality reasons: Keep out of reach of direct sunlight, store under dry conditions, partly used packaging should be closed well. Keep away from flammable material.

Packaging Materials:

PGS-7 (The Netherlands)

LGK (Germany)

Store in original container. Store in a closed container.

2/B

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7.3. Specific end use(s)

Specific use(s)

Exposure scenario

Fertilizer; www.everris.com; Read and follow label instructions Mixture. Not required.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters**

| <i>Ammonium nitrate; NH₄NO₃</i> | |
|---|---|
| Australia | N.A. |
| Czech Republic OEL | 10.0 mg/m ³ TWA |
| <i>Iron sulphate; FeSO₄+1H₂O</i> | |
| Belgium - 8 Hr TWA | 1 mg/m ³ |
| Denmark | TWA: 1 mg/m ³ |
| Finland | TWA: 1 mg/m ³ |
| Ireland | TWA: 1 mg/m ³ STEL: 2 mg/m ³ |
| Norway | TWA: 1 mg/m ³ STEL: 2 mg/m ³ |
| Portugal | TWA: 1 mg/m ³ |
| Spain - Valores Limite Ambientales - VLE | TWA: 1 mg/m ³ |
| Switzerland | TWA: 1 mg/m ³ |
| UK EH40 WEL (8h) | LTEL (8 hr TWA) 1 mg/m ³ STEL (15 min) 2mg/m ³ |
| <i>Copper sulphate anhydrous; CuSO₄</i> | |
| Austria | STEL 4 mg/m ³ TWA: 1 mg/m ³ |
| Australia | N.A. |
| Finland | TWA: 0.02 mg/m ³ |
| Poland | TWA: 0.2 mg/m ³ |
| Russia TWA | 0.5 mg/m ³ TWA 1258 |
| Switzerland | STEL: 0.2 mg/m ³ TWA: 0.1 mg/m ³ |
| <i>Manganese sulphate; MnSO₄+1H₂O</i> | |
| Austria | STEL 2 mg/m ³ TWA: 0.5 mg/m ³ |
| Australia | 0.2 mg/m ³ |
| Belgium - 8 Hr TWA | 0.2 mg/m ³ |
| Denmark | TWA: 0.2 mg/m ³ |
| Finland | TWA: 0.02 mg/m ³ TWA: 0.2 mg/m ³ |
| Ireland | TWA: 0.2 mg/m ³ STEL: 0.6 mg/m ³ |
| Japan | 0.2 mg/m ³ OEL Mn |
| NL MAC - TWA: | STEL: 0.05 mg/m ³ TWA: 0.2 mg/m ³ |

| | |
|--|---|
| Norway | TWA: 0.1 mg/m ³ STEL: 0.1 ppm |
| Poland | TWA: 0.05 mg/m ³ |
| Portugal | TWA: 0.2 mg/m ³ |
| Spain - Valores Limite Ambientales - VLE | TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³ |
| Switzerland | TWA: 0.5 mg/m ³ |
| UK EH40 WEL (8h) | 5 mg/m ³ |

Derived No Effect Level (DNEL)

| Component | Oral | Dermal | Inhalation |
|--|------------------------|--------------------|-----------------------|
| Ammonium nitrate; NH ₄ NO ₃ 6484-52-2 (40 - 65%) | 36 mg/m ³ | 5.12 mg/kg bw/day | 8.9 mg/m ³ |
| Manganese sulphate; MnSO ₄ +1H ₂ O 7785-87-7 (0.1 - 1%) | 37.6 mg/m ³ | 0.004 mg/kg bw/day | 0.2 mg/m ³ |

Predicted No Effect Concentration (PNEC)

No data available

| Component | Fresh Water | Freshwater sediment | Sea Water | Sea sediment | Soil | Impact on Sewage Treatment |
|---|-------------|---------------------|-----------|--------------|------------|----------------------------|
| Ammonium nitrate; NH ₄ NO ₃ 6484-52-2 (40 - 65%) | | | | | | 18 mg/l |
| Copper sulphate anhydrous; CuSO ₄ 7758-98-7 (0.1 - 1%) | 7.8 µg/l | 87 mg/kg | 5.2 µg/l | 676 mg/kg | 65 mg/kg | 230 µg/l |
| Manganese sulphate; MnSO ₄ +1H ₂ O 7785-87-7 (0.1 - 1%) | 0.013 mg/l | 0.011 mg/kg | 0 mg/l | 0.001 mg/kg | 25.1 mg/kg | 25.1 mg/kg |

8.2. Exposure controls**Personal protective equipment****Eye/Face Protection**

Wear eye/face protection

Hand protection

Gloves. Nitrile rubber (0.26 mm). Break through time. > 8 h.

Respiratory Protection

Not required; except in case of aerosol formation. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit

Skin and body protection:

Lightweight protective clothing

Hygiene Measures:

When using, do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties****Physical State:**

Solid

Appearance:

Granules

Color:

brown, white, yellow, grey, green.

Odor:

None

Bulk density:

975 - 1125

Melting Point/Freezing Point:

No data available

Boiling Point/Range:

Solid. Not applicable.

Flash Point:

Solid. Not applicable.

Evaporation Rate:

Solid. Not applicable.

Flammability (solid, gas):

Not flammable

Vapor Pressure:

Solid. Not applicable.

Vapour density

Solid. Not applicable.

Relative density

No data available

Water Solubility:

No data available

Solubility(ies)

No data available

| | |
|-----------------------------------|-----------------------------------|
| Partition Coefficient: | Solid. Not applicable. |
| Autoignition Temperature: | No data available |
| Decomposition temperature: | No data available |
| Explosive Properties: | Doesn't present explosion hazard. |
| 9.2. Other information | |
| VOC Content (%): | Solid. Not applicable. |

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Not reactive.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

10.4. Conditions to avoid

For quality reasons: Keep out of reach of direct sunlight, store under dry conditions, partly used packaging should be closed well.

10.5. Incompatible materials

Keep away from catalysts like derivatives of hexavalent chromium and metal halides. Keep away from flammable products (fuels) like charcoal, wood, flour, soot etc.

10.6. Hazardous decomposition products

None under normal processing. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Product Information

If this product is a mixture, the classification is not based on toxicology studies for this product, but is based solely on toxicology studies for ingredients found within this product. More detailed substance and/or ingredient information may be provided in the other sections of this SDS

Information on the Likely Routes of Exposure (inhalation, ingestion, skin and eye contact):

| | |
|---------------------|--|
| Inhalation | Inhalation of dust in high concentration may cause irritation of respiratory system. |
| Eye contact | Causes serious eye damage. |
| Skin Contact | May cause irritation. |
| Ingestion | May cause gastrointestinal discomfort if consumed in large amounts. |

Information on Toxicological Effects

None known

Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document: *mg/kg*

mg/kg

Unknown Acute Toxicity: 0% of the mixture consists of ingredient(s) of unknown toxicity.

| Chemical Name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|--|----------------------|-------------------------|-------------------------|
| Ammonium nitrate; NH ₄ NO ₃ | = 2217 mg/kg (Rat) | > 5000 mg/kg | > 88.8 mg/L (Rat) 4 h |
| Iron sulphate; FeSO ₄ +1H ₂ O | = 500 mg/kg (Rat) | = 155 mg/kg (Rat) | |
| Copper sulphate anhydrous; CuSO ₄ | = 300 mg/kg (Rat) | = 1000 mg/kg (Rabbit) | |
| Manganese sulphate; MnSO ₄ +1H ₂ O | = 2125 mg/kg (Rat) | | > 4.98 mg/L (Rat) 4h |

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure:

If this product is a mixture, the classification is not based on toxicology studies for this product, but is based solely on toxicology

studies for ingredients found within this product. More detailed substance and/or ingredient information may be provided in the other sections of this SDS

| | |
|--|--|
| Serious eye damage/eye irritation | Classification based on individual ingredients of the mixture. |
| Respiratory or skin sensitization | As a precaution the product should be treated as a sensitizer. |
| Germ Cell Mutagenicity | Classification based on individual ingredients of the mixture. |
| Carcinogenicity | Classification based on individual ingredients of the mixture. |
| Reproductive Toxicity | Classification based on individual ingredients of the mixture. |
| STOT - Single Exposure | Classification based on individual ingredients of the mixture. |
| STOT - Repeated Exposure | Classification based on individual ingredients of the mixture. |
| Aspiration Hazard | Classification based on individual ingredients of the mixture. |

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity

Should not be released into the environment

Unknown Aquatic Toxicity

11% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

| Chemical Name | Algae/aquatic plants | Fish | Toxicity to Microorganisms | Crustacea |
|--|----------------------|--|----------------------------|---|
| Ammonium nitrate; NH ₄ NO ₃ | - | 65 - 85: 48 h Cyprinus carpio mg/L LC50 semi-static | - | - |
| Iron sulphate; FeSO ₄ +1H ₂ O | - | 925: 96 h Poecilia reticulata mg/L LC50 static 0.56: 96 h Cyprinus carpio mg/L LC50 semi-static | - | 152: 48 h Daphnia magna mg/L EC50 6.15 - 9.26: 48 h Daphnia magna mg/L EC50 Static |
| Copper sulphate anhydrous; CuSO ₄ | - | 0.1: 96 h Oncorhynchus mykiss mg/L LC50 | - | 0.024: 48 h Daphnia magna mg/L EC50 |

12.2. Persistence and degradability

Persistence and Degradability:

No persistent or cumulative effects were observed.

12.3. Bioaccumulative potential

Bioaccumulation:

Does not bioaccumulate.

| Chemical Name | LOGPOW |
|---|--------|
| Ammonium nitrate; NH ₄ NO ₃ | -3.1 |

12.4. Mobility in soil

No data available.

12.5. PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Disposal of Wastes:

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging:

Do not reuse container.

Other Information Use up product completely. Packaging material is industrial waste.

Section 14: TRANSPORT INFORMATION

IMO / IMDG

14.1
UN-No: 2071

14.2
Proper shipping name: AMMONIUM NITRATE BASED FERTILIZER

14.3
Hazard Class: 9

14.4
Packing group: III

| Chemical Name | IMDG - Marine Pollutants |
|--|---|
| Copper sulphate anhydrous; CuSO ₄ 7758-98-7 (0.1 - 1%) | IMDG regulated marine pollutant (Listed in the index, listed under Copper sulphate, anhydrous, hydrates and solution) |

Marine Pollutant: Not regulated

14.6
EmS: F-H / S-Q

Special Provisions 186, 193

14.7
Bulk transport according Annex II of MARPOL and IBC Code No data available

ADR/RID

14.1
UN-No: Not regulated

14.2
Proper shipping name: Not regulated

14.3
Hazard Class: Not regulated

14.4
Packing group: Not regulated

14.5
Environmental Hazard Not regulated

14.6
Special Provisions None

IATA

14.1
UN-No: 2071

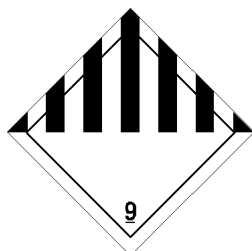
14.2
Proper shipping name: AMMONIUM NITRATE BASED FERTILIZER

14.3
Hazard Class: 9

14.4
Packing group: III

14.5
Environmental Hazard Not regulated

14.6
Special Provisions A89, A90



Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Belgium

| Component | Belgium - Major Accidents - Qualifying Quantities for Safety Reporting | Belgium - Major Accidents - Qualifying Quantities for Accident Prevention |
|---|---|---|
| Ammonium nitrate; NH ₄ NO ₃ 6484-52-2 (40 - 65%) | 2500 tonne (technical grade; (a) this applies to Ammonium nitrate in which the Nitrogen content as a result of Ammonium nitrate is (i) between 24.5% and 28% by weight and which contain ≤0.4% total combustible or (ii) >28% by weight and which contain ≤0.2% combustible substances (b) aqueous Ammonium nitrate solutions in which the concentration of Ammonium nitrate is >80% by weight) | 350 tonne |

Denmark

Denmark B

France

ICPE Classified installation: article 4702

Germany

LGK (Germany) 13
Water Endangering Class (WGK): 1 (Everris classification)
Gefahrstoffverordnung (Germany) TRGS 511 B III

| Component | German WGK Section |
|--|--------------------|
| Ammonium nitrate; NH ₄ NO ₃ 6484-52-2 (40 - 65%) | 1 |
| Iron sulphate; FeSO ₄ +1H ₂ O 7720-78-7 (0.1 - 1%) | 1 |
| Copper sulphate anhydrous; CuSO ₄ 7758-98-7 (0.1 - 1%) | 2 |
| Manganese sulphate; MnSO ₄ +1H ₂ O 7785-87-7 (0.1 - 1%) | 2 |

| Component | EU - Explosives Precursors Marketing and Use (98/2013) - Substances Subject to Suspicious Transactions Reporting | EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances |
|---|--|--|
| Ammonium nitrate; NH ₄ NO ₃ 6484-52-2 (40 - 65%) | Present (in concentration of 16% by weight of Nitrogen in relation to Ammonium nitrate or higher) | Use restricted. See item 58. (Conditions of restrictions 27 June 2010) |

15.2 Chemical safety assessment

Substance(s) usage is covered according to Reach regulation 1907/2006

Take note of Dir. 98/24/EC on the protection of the health and safety of workers from risks related to chemical agents at work

| Chemical Name | Restricted substance per REACH Annex XVII | Substance subject to authorization per REACH Annex XIV |
|---|---|--|
| Ammonium nitrate; NH ₄ NO ₃ | Use restricted. See item 58. | |

| Chemical Name | Lower-tier requirements (tons) | Upper-tier requirements (tons) |
|---|--------------------------------|--------------------------------|
| Ammonium nitrate; NH ₄ NO ₃ | 350 | 2500 |

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

- H332 - Harmful if inhaled

- H319 - Causes serious eye irritation
- H360FD - May damage fertility. May damage the unborn child
- H272 - May intensify fire; oxidizer
- H302 - Harmful if swallowed
- H318 - Causes serious eye damage
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects
- H315 - Causes skin irritation
- H373 - May cause damage to the kidneys/ liver/ eyes/ brain/ respiratory system/ central nervous system through prolonged or repeated exposure if inhaled
- H411 - Toxic to aquatic life with long lasting effects

Key or legend to abbreviations and acronyms used in the safety data sheet

RID: Regulations Concerning the International Transport of Dangerous Goods by Rail

ICAO: International Civil Aviation Organization

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PNEC: Predicted No Effect Concentration

DNEL: Derived No-Effect Level

REACH: Registration, Evaluation, Authorization of Chemicals

CLP: EU-GHS; Classification, Labelling and Packaging

OEL: Occupational Exposure Limit

TWA: Time Weighted Average

ATE: Acute Toxicity Estimate

EUH phrase: CLP (EU) specific hazard statement

LD50: Lethal dose, 50%.

LC50: Lethal concentration, 50%.

SVHC: Substance of Very High Concern.

Classification procedure

- Calculation method
- Expert judgment and weight of evidence determination

Key literature references and sources for data

According to EC Regulation 1907/2006 (Reach), Regulation EU No. 2015/830. Regulation (EC) No 1272/2008 (CLP).

Prepared by

Regulatory Affairs Department (INFO-MSDS@EVERRIS.COM)

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Restrictions on use

Restricted to professional users

Reason for revision

*** Indicates changes since the last revision. This version replaces all previous versions

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