



# Safety Data Sheet

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Version: 2

## Section 1: IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

### Product identifier

**Product Name** Osmocote Exact Standard High K 5-6M; 11-4.8-14.9+TE  
**Product ID** 88270225AU

### Other means of identification

**Proper shipping name** Not regulated

**Synonyms:** Osmocote Exact Standard High K 11-4.8-14.9+TE

### Recommended use of the chemical and restrictions on use

**Recommended Use** Fertilizer (PC12). Restricted to professional users.

### Details of manufacturer or importer

#### Manufacturer

Everris Australia Pty Ltd, 211/33 Lexington Drive, Bella Vista, NSW 2153, Australia. Tel: +61(2) 8801 3300

**E-mail address** INFO-MSDS@EVERRIS.COM

#### Emergency telephone number

Australia: (02) 8014 4558  
New Zealand: (09) 9929 1483

## Section 2: HAZARD(S) IDENTIFICATION

### GHS Classification

Mixture

|                                          |                     |
|------------------------------------------|---------------------|
| <b>Serious eye damage/eye irritation</b> | Category 1 - (H318) |
|------------------------------------------|---------------------|

### Label elements



**Signal word**  
Danger

### **Hazard statements**

H318 - Causes serious eye damage

### **Precautionary Statements - Prevention**

Wear protective gloves/protective clothing/eye protection/face protection

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a POISON CENTER or doctor/physician

**Other hazards which do not result in classification**

No hazards to be especially mentioned

**Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS IN ACCORDANCE WITH SCHEDULE 8**

**Substance**

| Chemical name                                                           | CAS No    | EC No     | Weight-% | Classification according to Regulation (EC) No. 1272/2008 [CLP]                                | REACH registration number |
|-------------------------------------------------------------------------|-----------|-----------|----------|------------------------------------------------------------------------------------------------|---------------------------|
| Ammonium nitrate; $\text{NH}_4\text{NO}_3$                              | 6484-52-2 | 229-347-8 | 10 - 30% | Eye Irrit. 2 (H319)<br>Ox. Sol. 3 (H272)                                                       | 01-2119490981-27          |
| Potassium sulphate; $\text{K}_2\text{SO}_4$                             | 7778-80-5 | 231-915-5 | 10 - 30% | Eye Dam. 1 (H318)                                                                              | 01-2119489441-34          |
| Iron sulphate; $\text{FeSO}_4 \cdot \text{H}_2\text{O}$                 | 7720-78-7 | 231-753-5 | 0.1 - 1% | Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>Acute Tox. 4 (H302)                             | 01-2119513203-57          |
| Copper sulphate anhydrous; $\text{CuSO}_4$                              | 7758-98-7 | 231-847-6 | 0.1 - 1% | Skin irrit. 2 (H319)<br>Eye irrit. 2 (H315)<br>Acute Tox. 4 (H302)<br>Aquatic Chronic 1 (H410) | 01-2119520566-40          |
| Sodium borate; $\text{Na}_2\text{B}_4\text{O}_7$                        | 1330-43-4 | 215-540-4 | < 0.1%   | Eye Irrit. 2 (H319)<br>Repr. 1B (H360FD)                                                       | 01-2119490790-32          |
| Zinc sulphate mono hydrate;<br>$\text{ZnSO}_4 \cdot \text{H}_2\text{O}$ | 7446-19-7 | 231-793-3 | < 0.1%   | Acute Tox. 4 (H302)<br>Eye Dam. 1 (H318)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410) | 01-2119474684-27          |

53% of the other ingredients are determined not be hazardous.

**Section 4: FIRST AID MEASURES**

**Description of first aid measures**

**General advice**

First aid measures should be executed by trained personnel only.

**Inhalation**

Remove to fresh air. 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.

**Eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin Contact**

Wash skin with soap and water. Get medical attention if irritation develops and persists.

**Ingestion**

Clean mouth with water and drink afterwards plenty of water. Possible symptoms are nausea and/or vomiting. 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.

**Most important symptoms and effects, both acute and delayed**

**Symptoms**

no data available.

**Indication of any immediate medical attention and special treatment needed**

Note to physicians Treat symptomatically.

## Section 5: FIREFIGHTING MEASURES

### Suitable Extinguishing Media

Suitable Extinguishing Media CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams. Dry chemical. Foam.

### Special protective actions for fire-fighters

Special protective equipment for fire-fighters Coordinate fire extinguishing measures to fire in surrounding area.

## Section 6: ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Avoid generation of dust.

For emergency responders Use personal protection recommended in Section 8.

### Environmental precautions

Environmental precautions Do not flush into surface water or sanitary sewer system. Prevent product from entering drains. See Section 12 for additional Ecological Information.

### Methods and material for containment and cleaning up

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

Methods for cleaning up Pick up and transfer to properly labeled containers.

## Section 7: HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED

### Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Use personal protection equipment.

### Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep container closed when not in use. Keep in a dry, cool and well-ventilated place. Protect from sunlight.

Incompatible materials None known based on information supplied.

## Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Control parameters

#### Copper sulphate anhydrous; CuSO<sub>4</sub>

|           |      |
|-----------|------|
| Australia | N.A. |
|-----------|------|

#### Sodium borate; Na<sub>2</sub>B<sub>4</sub>O<sub>7</sub>

|           |                         |
|-----------|-------------------------|
| Australia | 1 mg/m <sup>3</sup> TWA |
|-----------|-------------------------|

**Appropriate engineering controls**

**Engineering Controls**                      Showers  
                                                         Eyewash stations  
                                                         Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face Protection**                      No special protective equipment required.

**Skin and body protection:**              No special protective equipment required.

**Hand Protection**                          Nitrile rubber. Break though time >8h.

**Environmental exposure controls**      no data available.

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

**Physical state**                                Solid  
**Appearance:**                               Granules  
**Color:**                                        brown  
**Odor:**                                         Fertilizer.  
**Odor Threshold:**                         No data available

|                                      |                   |
|--------------------------------------|-------------------|
| <b>pH</b>                            | No data available |
| <b>Melting Point/Freezing Point:</b> | No data available |
| <b>Boiling Point/Range:</b>          | No data available |
| <b>Flash Point:</b>                  | No data available |
| <b>Evaporation Rate:</b>             | no data available |
| <b>Flammability (solid, gas):</b>    | Non-flammable     |
| <b>Vapor Pressure:</b>               | No data available |
| <b>Vapour density</b>                | No data available |
| <b>Water Solubility:</b>             | no data available |
| <b>Partition Coefficient:</b>        | no data available |
| <b>Autoignition Temperature:</b>     | No data available |
| <b>Hyphen</b>                        | no data available |
| <b>Kinematic Viscosity:</b>          | No data available |
| <b>Dynamic Viscosity:</b>            | no data available |

**Other information**

**Softening Point:**                          no data available  
**Molecular Weight:**                      no data available  
**VOC Content (%)**                          No data available  
**Particle Size**  
**Particle Size Distribution**

**Section 10: STABILITY AND REACTIVITY**

**Reactivity** Not reactive.

**Chemical stability** Stable under normal conditions.

**Possibility of hazardous reactions**

**Possibility of hazardous reactions**    None under normal processing.

**Hazardous Decomposition Products:**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Conditions to Avoid:**

**Conditions to avoid**

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

**Incompatible materials**

**Incompatible materials**

None known based on information supplied.

**Hazardous decomposition products**

**Hazardous Decomposition Products** None known based on information supplied.

## Section 11: TOXICOLOGICAL INFORMATION

**Acute toxicity**

**Information on likely routes of exposure**

**Product Information**

**Inhalation**

May cause irritation of respiratory tract.

**Eye contact**

May cause redness, itching, and pain.

**Skin Contact**

May cause irritation.

**Ingestion**

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

**Symptoms**

no data available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 6,511.30

ATEmix (dermal) 9,288.20

**Unknown acute toxicity**

0 % of the mixture consists of ingredient(s) of unknown toxicity

| Chemical name                                            | Oral LD50            | Dermal LD50             | Inhalation LC50                   |
|----------------------------------------------------------|----------------------|-------------------------|-----------------------------------|
| Ammonium nitrate; $\text{NH}_4\text{NO}_3$               | = 2217 mg/kg ( Rat ) | > 5000 mg/kg            | > 88.8 mg/L ( Rat ) 4 h           |
| Potassium sulphate; $\text{K}_2\text{SO}_4$              | = 6600 mg/kg ( Rat ) | > 2000 mg/kg ( Rat )    | .?                                |
| Iron sulphate; $\text{FeSO}_4 \cdot 1\text{H}_2\text{O}$ | = 500 mg/kg ( Rat )  | -                       | .?                                |
| Copper sulphate anhydrous; $\text{CuSO}_4$               | = 300 mg/kg ( Rat )  | = 1000 mg/kg ( Rabbit ) | .?                                |
| Sodium borate; $\text{Na}_2\text{B}_4\text{O}_7$         | = 2660 mg/kg ( Rat ) | > 2000 mg/kg ( Rabbit ) | > 2 mg/m <sup>3</sup> ( Rat ) 4 h |

See section 16 for terms and abbreviations

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

**skin corrosion/irritation**

Classification based on individual ingredients of the mixture.

**Serious eye damage/eye irritation**

Classification based on individual ingredients of the mixture.

|                                          |                                                                |
|------------------------------------------|----------------------------------------------------------------|
| <b>Respiratory or skin sensitization</b> | Classification based on individual ingredients of the mixture. |
| <b>Germ Cell Mutagenicity</b>            | Classification based on individual ingredients of the mixture. |
| <b>Carcinogenicity</b>                   | Classification based on individual ingredients of the mixture. |
| <b>Reproductive Toxicity</b>             | Classification based on individual ingredients of the mixture. |
| <b>STOT - Single Exposure</b>            | Classification based on individual ingredients of the mixture. |
| <b>STOT - Repeated Exposure</b>          | Classification based on individual ingredients of the mixture. |
| <b>Aspiration Hazard</b>                 | Classification based on individual ingredients of the mixture. |

## Section 12: ECOLOGICAL INFORMATION

### Ecotoxicity

|                                 |                                                                                             |
|---------------------------------|---------------------------------------------------------------------------------------------|
| <b>Ecotoxicity</b>              | Do not allow product to enter the environment uncontrolled.                                 |
| <b>Unknown aquatic toxicity</b> | 10 % of the mixture consists of component(s) of unknown hazards to the aquatic environment. |

| Chemical name                                                | Algae/aquatic plants                                   | Fish                                                                                                                                                              | Toxicity to microorganisms | Crustacea                                                                                         |
|--------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------------------------------------|
| Potassium sulphate;<br>K <sub>2</sub> SO <sub>4</sub>        | EC50: =2900mg/L (72h, <i>Desmodesmus subspicatus</i> ) | LC50: 510 - 880mg/L (96h, <i>Pimephales promelas</i> )<br>LC50: =3550mg/L (96h, <i>Lepomis macrochirus</i> )<br>LC50: =653mg/L (96h, <i>Lepomis macrochirus</i> ) | -                          | EC50: =890mg/L (48h, <i>Daphnia magna</i> )                                                       |
| Iron sulphate;<br>FeSO <sub>4</sub> ·1H <sub>2</sub> O       | -                                                      | LC50: =0.56mg/L (96h, <i>Cyprinus carpio</i> )<br>LC50: =925mg/L (96h, <i>Poecilia reticulata</i> )                                                               | -                          | EC50: 6.15 - 9.26mg/L (48h, <i>Daphnia magna</i> )<br>EC50: =152mg/L (48h, <i>Daphnia magna</i> ) |
| Copper sulphate anhydrous; CuSO <sub>4</sub>                 | -                                                      | LC50: =0.1mg/L (96h, <i>Oncorhynchus mykiss</i> )                                                                                                                 | -                          | 0.024: 48 h <i>Daphnia magna</i> mg/L EC50                                                        |
| Sodium borate; Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> | 158: 96 h <i>Desmodesmus subspicatus</i> mg/L          | LC50: =340mg/L (96h, <i>Limanda limanda</i> )                                                                                                                     | -                          | LC50: 1085 - 1402mg/L (48h, <i>Daphnia magna</i> )                                                |

### Persistence and degradability

|                                       |                    |
|---------------------------------------|--------------------|
| <b>Persistence and Degradability:</b> | no data available. |
|---------------------------------------|--------------------|

### Bioaccumulative potential

|                        |                           |
|------------------------|---------------------------|
| <b>Bioaccumulation</b> | No information available. |
|------------------------|---------------------------|

### Mobility

|                         |                    |
|-------------------------|--------------------|
| <b>Mobility in soil</b> | no data available. |
| <b>Mobility</b>         | no data available. |

| Chemical name                                     | Partition coefficient |
|---------------------------------------------------|-----------------------|
| Ammonium nitrate; NH <sub>4</sub> NO <sub>3</sub> | -3.1                  |

### Other adverse effects

Other adverse effects No information available.

### Section 13: DISPOSAL CONSIDERATIONS

#### Waste Treatment Methods:

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

### Section 14: TRANSPORT INFORMATION

**ADG** Not regulated

**IATA** Not regulated

**IMDG** Not regulated

**Bulk transport according Annex II of MARPOL and IBC Code**  
no data available

### Section 15: REGULATORY INFORMATION

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

##### National regulations

##### New Zealand:

**Hazardous Substances Regulations**

Not regulated

##### Australia

See section 8 for national exposure control parameters

##### International Inventories:

**TSCA**

This product complies with USINV

**ENCS**

This product complies with enCS:

**Australian Inventory of Chemical Substances**

This product does not comply with AICS

##### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

##### International Regulations

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applied

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

### Section 16: ANY OTHER RELEVANT INFORMATION

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**Prepared by** Regulatory Affairs Department (INFO-MSDS@EVERRIS.COM)  
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**Revision Note** Not applied

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

ADG: Australian Dangerous Goods code  
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.

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

|         |                             |      |                                  |
|---------|-----------------------------|------|----------------------------------|
| TWA     | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value         | *    | Skin designation                 |

**Disclaimer**

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**