



# MATERIAL SAFETY DATA SHEET

Date stamp: 16-Jan-2013

MSDS Ref. No.: E903226

Revision Number: 0

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** Osmocote Plus 15-9-12, 5-6 Months  
**Description:** Controlled Release Fertilizer

**Company**  
Everris NA Inc.  
P.O. Box 3310  
Dublin, OH 43016

**24-HOUR EMERGENCY TELEPHONE NUMBERS:**  
CHEMTREC (U.S.): 1-800-424-9300  
CHEMTREC (International): 1-703-527-3887  
Non-Emergency Calls: 1-800-492-8255

**Formula No.:** S14311  
**Product Number(s):** E903226

## 2. HAZARDS IDENTIFICATION

### Labelling

**Signal word:** CAUTION

**Precautionary Statements**  
Do not ingest. Do not inhale. Keep out of reach of children and domestic animals.

### Potential health effects

**Eye contact:** Contact with eyes may cause irritation.

**Skin contact:** Irritation not expected.

**Ingestion:** Considered practically non-toxic. Possible gastrointestinal tract irritation.

**Inhalation:** May cause irritation of respiratory tract.

**Aggravated Medical Conditions:** Inhalation may aggravate asthma.

**Principle routes of exposure:** Skin, Eyes, Inhalation

**Target organ effects:** Irritation.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS-No	Weight %
Ammonium Nitrate, NH <sub>4</sub> NO <sub>3</sub>	6484-52-2	15-40
Potassium sulphate, K <sub>2</sub> SO <sub>4</sub>	7778-80-5	10-30
Ammonium phosphate	7722-76-1	7-13
Potassium Nitrate, KNO <sub>3</sub>	7757-79-1	7-13
Ammonium sulphate, (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	7783-20-2	3-7
Calciumphosphate, Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>	7758-87-4	3-7
Magnesium sulphate anhydrous, MgSO <sub>4</sub>	7487-88-9	1-5
Calcium Carbonate, CaCO <sub>3</sub>	471-34-1	1-5
Magnesium oxide, MgO	1309-48-4	0.5-1.5
Iron EDTA, Fe-EDTA	15708-41-5	1-5
Potassium chloride, KCl	7447-40-7	0.5-1.5
Iron sulphate, FeSO <sub>4</sub> +7H <sub>2</sub> O	7782-63-0	0.1-1
Manganese sulphate, MnSO <sub>4</sub>	7785-87-7	0.1-1
Boric Acid, H <sub>3</sub> BO <sub>3</sub>	10043-35-3	0.1-1
Sodium molybdate, Na <sub>2</sub> MoO <sub>4</sub> +2H <sub>2</sub> O	7631-95-0	<0.1
Zinc Sulfate Anhydrous	7733-02-0	<0.1
Copper sulphate anhydrous, CuSO <sub>4</sub> +0H <sub>2</sub> O	7758-98-7	<0.1
Zinc oxide, ZnO	1314-13-2	<0.1

## 4. FIRST AID MEASURES

**Eye contact:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice

**Skin contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice

Revision date:

Page 1 of 5

<b>Ingestion:</b>	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person
<b>Inhalation:</b>	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice

## 5. FIRE-FIGHTING MEASURES

<b>Flammable properties:</b>	Decomposes on heating.
<b>Suitable extinguishing media:</b>	Water spray, carbon dioxide, dry chemical, chemical foam
<b>Explosion potential:</b>	Dust clouds may be explosive.
<b>Explosive properties:</b>	No information available.
<b>Hazardous combustion products:</b>	Combustion can produce toxic fumes and irritating gases.
<b>Fire fighting procedures:</b>	Select appropriate method to surround and extinguish fire
<b>Special protective equipment for firefighters:</b>	In the event of fire, wear self-contained breathing apparatus

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions:</b>	Wear personal protective equipment
<b>Environmental precautions:</b>	Prevent product from entering drains
<b>Methods for containment:</b>	Use good housekeeping practices. Clean up promptly by sweeping or vacuum.
<b>Methods for cleaning up:</b>	If material is uncontaminated, collect and reuse as recommended for product.

## 7. HANDLING AND STORAGE

**Handling:** Avoid container breakage

**Storage:** Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredients	ACGIH:	OSHA:
Zinc oxide, ZnO	2 mg/m <sup>3</sup> TWA	15 mg/m <sup>3</sup> TWA total 5 mg/m <sup>3</sup> TWA
Copper sulphate anhydrous, CuSO <sub>4</sub> +0H <sub>2</sub> O	Not Listed	Not Listed
Calcium phosphate, Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>	Not Listed	Not Listed
Potassium Nitrate, KNO <sub>3</sub>	10 mg/m <sup>3</sup> (8-hr TWA) 3 mg/m <sup>3</sup> (8-hr TWA)	15 mg/m <sup>3</sup> (8-hr TWA) 5 mg/m <sup>3</sup> (8-hr TWA)
Potassium chloride, KCl	Not Listed	Not Listed
Calcium Carbonate, CaCO <sub>3</sub>	Not Listed	15 mg/m <sup>3</sup> TWA total 5 mg/m <sup>3</sup> TWA
Iron sulphate, FeSO <sub>4</sub> +7H <sub>2</sub> O	1 mg/m <sup>3</sup> TWA	Not Listed
Iron EDTA, Fe-EDTA	1 mg/m <sup>3</sup> TWA	Not Listed
Manganese sulphate, MnSO <sub>4</sub>	0.2 mg/m <sup>3</sup> TWA	Not Listed
Zinc Sulfate Anhydrous	Not Listed	Not Listed
Boric Acid, H <sub>3</sub> BO <sub>3</sub>	2 mg/m <sup>3</sup> TWA	Not Listed
Sodium molybdate, Na <sub>2</sub> MoO <sub>4</sub> +2H <sub>2</sub> O	0.5 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWA
Potassium sulphate, K <sub>2</sub> SO <sub>4</sub>	Not Listed	Not Listed
Ammonium Nitrate, NH <sub>4</sub> NO <sub>3</sub>	N.A.	N.A.
Magnesium sulphate anhydrous, MgSO <sub>4</sub>	Not Listed	Not Listed
Ammonium sulphate, (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	Not Listed	Not Listed
Ammonium phosphate	Not Listed	Not Listed
Magnesium oxide, MgO	10 mg/m <sup>3</sup> TWA	15 mg/m <sup>3</sup> TWA total

### Engineering controls

Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard

**Personal Protective Equipment****Eye/face protection**

Eye/face protection is not required, but is recommended in manufacturing situations where contact may occur.

**Skin and body protection:**

Wear suitable protective clothing if contact is anticipated during manufacturing. Impervious gloves.

**Respiratory protection:**

If airborne levels are high or product does not remain intact, use a combination of engineering controls (e.g. ventilation) and personal protection, e.g., NIOSH/MSHA approved respirator for dusts, mists, and fumes

**General hygiene considerations:**

Wash hands before breaks and immediately after handling the product

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b>	Solid	<b>Color:</b>	Tan
<b>Bulk density:</b>	65-70 lbs/cu.ft.	<b>Flash point:</b>	Not applicable
<b>Appearance:</b>	Granular	<b>Odor:</b>	Fertilizer

**10. STABILITY AND REACTIVITY**

<b>Chemically Stable:</b>	Yes
<b>Conditions to avoid</b>	Damp or wet conditions. Extreme heat.
<b>Materials to avoid:</b>	Oxidizing agent.
<b>Hazardous decomposition products:</b>	Toxic fumes and gases may be generated. Metal oxides possible.
<b>Possibility of hazardous reactions:</b>	Poses little or no immediate hazard.

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

**Eye effects:** Contact with eyes may cause irritation  
**Skin effects:** May cause skin irritation and/or dermatitis

**Chronic toxicity**

**Carcinogenic effects:** The table below indicates whether each agency has listed any ingredient as a carcinogen .

Ingredients	NTP:	IARC:	OSHA:
Zinc oxide, ZnO	Not listed	Not listed	Not listed
Copper sulphate anhydrous, CuSO <sub>4</sub> +0H <sub>2</sub> O	Not listed	Not listed	Not listed
Calciumphosphate, Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>	Not listed	Not listed	Not listed
Potassium Nitrate, KNO <sub>3</sub>	Not listed	Not listed	Not listed
Potassium chloride, KCl	Not listed	Not listed	Not listed
Calcium Carbonate, CaCO <sub>3</sub>	Not listed	Not listed	Not listed
Iron sulphate, FeSO <sub>4</sub> +7H <sub>2</sub> O	Not listed	Not listed	Not listed
Iron EDTA, Fe-EDTA	Not listed	Not listed	Not listed
Manganese sulphate, MnSO <sub>4</sub>	Not listed	Not listed	Not listed
Zinc Sulfate Anhydrous	Not listed	Not listed	Not listed
Boric Acid, H <sub>3</sub> BO <sub>3</sub>	Not listed	Not listed	Not listed
Sodium molybdate, Na <sub>2</sub> MoO <sub>4</sub> +2H <sub>2</sub> O	Not listed	Not listed	Not listed
Potassium sulphate, K <sub>2</sub> SO <sub>4</sub>	Not listed	Not listed	Not listed
Ammonium Nitrate, NH <sub>4</sub> NO <sub>3</sub>	Not listed	Not listed	Not listed
Magnesium sulphate anhydrous, MgSO <sub>4</sub>	Not listed	Not listed	Not listed
Ammonium sulphate, (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	Not listed	Not listed	Not listed
Ammonium phosphate	Not listed	Not listed	Not listed
Magnesium oxide, MgO	Not listed	Not listed	Not listed

**General Information****Ingestion:**

Very low toxicity for humans and animals

**Inhalation:**

Health injuries are not known or expected under normal use

**Target organ effects:**

Health injuries are not known or expected under normal use  
 Irritation.

**12. ECOLOGICAL INFORMATION**

<b>Ecotoxicity effects:</b>	No data is available on the product itself.
<b>Persistence and degradability:</b>	Inherently biodegradable. Non-persistent.
<b>Bioaccumulative potential:</b>	Does not bioaccumulate.
<b>Mobility:</b>	Water contaminating.
<b>Aquatic toxicity:</b>	May be beneficial to plant life.
<b>Additional ecological information:</b>	Do not apply directly to lakes, streams, or ponds. Contains Molybdenum (Mo). The application of materials containing Molybdenum (Mo) may result in forage crops containing levels of Molybdenum (Mo) which are toxic to ruminant animals.

**13. DISPOSAL CONSIDERATIONS**

<b>Waste Disposal Methods:</b>	Apply as fertilizer to field. Dispose of in accordance with local regulations and national regulations.
<b>Contaminated packaging:</b>	Do not re-use empty containers. If empty, place in trash or offer for recycling if available.

**14. TRANSPORT INFORMATION**

The description shown may not apply to all situations. Consult 49 CFR, or appropriate dangerous goods regulations for additional description requirements (e.g. technical name) and mode-specific or quantity-specific shipping requirements.

<b>DOT (Land)</b>	Not DOT regulated
<b>DOT (AIR)</b>	UN2071, Ammonium Nitrate Based Fertilizer, 9, PGIII
<b>DOT (Vessel)</b>	UN2071, Ammonium Nitrate Based Fertilizer, 9, PGIII

**15. REGULATORY INFORMATION**

Ingredients	CAS-No	CERCLA/SARA 313	CERCLA/SARA 302
Zinc oxide, ZnO	1314-13-2	Not Listed	Not Listed
Copper sulphate anhydrous, CuSO <sub>4</sub> +0H <sub>2</sub> O	7758-98-7	10 lb final RQ 4.54 kg final RQ	Not Listed
Calciumphosphate, Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>	7758-87-4	Not Listed	Not Listed
Potassium Nitrate, KNO <sub>3</sub>	7757-79-1	Not Listed	Not Listed
Potassium chloride, KCl	7447-40-7	Not Listed	Not Listed
Calcium Carbonate, CaCO <sub>3</sub>	471-34-1	Not Listed	Not Listed
Iron sulphate, FeSO <sub>4</sub> +7H <sub>2</sub> O	7782-63-0	1000 lb final RQ 454 kg final RQ	Not Listed
Iron EDTA, Fe-EDTA	15708-41-5	Not Listed	Not Listed
Manganese sulphate, MnSO <sub>4</sub>	7785-87-7	Not Listed	Not Listed
Zinc Sulfate Anhydrous	7733-02-0	1000 lb final RQ 454 kg final RQ	Not Listed
Boric Acid, H <sub>3</sub> BO <sub>3</sub>	10043-35-3	Not Listed	Not Listed
Sodium molybdate, Na <sub>2</sub> MoO <sub>4</sub> +2H <sub>2</sub> O	7631-95-0	Not Listed	Not Listed
Potassium sulphate, K <sub>2</sub> SO <sub>4</sub>	7778-80-5	Not Listed	Not Listed
Ammonium Nitrate, NH <sub>4</sub> NO <sub>3</sub>	6484-52-2	Not listed	Not Listed
Magnesium sulphate anhydrous, MgSO <sub>4</sub>	7487-88-9	Not Listed	Not Listed
Ammonium sulphate, (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	7783-20-2	Not Listed	Not Listed
Ammonium phosphate	7722-76-1	Not Listed	Not Listed
Magnesium oxide, MgO	1309-48-4	Not Listed	Not Listed

**General Information** Contact local authorities for disposal of large quantities of product

**16. OTHER INFORMATION**

<b>NFPA:</b>	<b>Health:</b> 2	<b>Flammability:</b> 1	<b>Reactivity:</b> 0
<b>HMIS:</b>	<b>Health:</b> 2	<b>Flammability:</b> 0	<b>Reactivity:</b> 1

**Hazard Rating:** 0=Least; 1-Slight; 2=Moderate; 3=High; 4=Severe

**General comment:** This document contains health, safety, and environmental information useful to emergency response agencies, health care providers, manufacturers, and workers/employees. It does not replace the precautionary language, use directions, or the storage and disposal information found on the product label.

**Additional Information:** This information contained herein is, to the best of Scott's knowledge and belief, accurate and reliable as of the date of preparation of this document. However, no warranty or guarantee, express or implied, is made as to the accuracy or reliability, and Scotts shall not be liable for any loss or damage arising out of the use thereof. No authorization is given or implied to use any patented invention without a license. In addition, Scotts shall not be liable for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product. This information contained herein is, to the best of Everris' knowledge and belief, accurate and reliable as of the date of preparation of this document. However, no warranty or guarantee, express or implied, is made as to the accuracy or reliability, and Everris shall not be liable for any loss or damage arising out of the use thereof. No authorization is given or implied to use any patented invention without a license. In addition, Everris shall not be liable for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.