



MATERIAL SAFETY DATA SHEET

Date stamp: 28-Sep-2012

MSDS Ref. No.: E903266

Revision Number: 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Osmocote Plus 15-9-12 STD 8-9M
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.: S14312
Product Number(s): E903266

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 ₄ NO ₃	6484-52-2	15-40
Potassium sulphate, K ₂ SO ₄	7778-80-5	10-30
Ammonium phosphate	7722-76-1	7-13
Potassium Nitrate, KNO ₃	7757-79-1	7-13
Ammonium Sulphate, (NH ₄) ₂ SO ₄	7783-20-2	3-7
Calciumphosphate, Ca ₃ (PO ₄) ₂	7758-87-4	3-7
Magnesium sulphate anhydrous, MgSO ₄	7487-88-9	1-5
Calcium Carbonate, CaCO ₃	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 ₄ +7H ₂ O	7782-63-0	0.1-1
Manganese sulphate, MnSO ₄	7785-87-7	0.1-1
Boric Acid, H ₃ BO ₃	10043-35-3	0.1-1
Sodium molybdate, Na ₂ MoO ₄ +2H ₂ O	7631-95-0	<0.1
Zinc Sulfate Anhydrous	7733-02-0	<0.1
Copper sulphate anhydrous, CuSO ₄ +0H ₂ 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

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Ingestion:	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
Inhalation:	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

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Wear personal protective equipment
Environmental precautions:	Prevent product from entering drains
Methods for containment:	Use good housekeeping practices. Clean up promptly by sweeping or vacuum.
Methods for cleaning up:	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 ³ TWA	15 mg/m ³ TWA total 5 mg/m ³ TWA
Copper sulphate anhydrous, CuSO ₄ +0H ₂ O	Not Listed	Not Listed
Calciumphosphate, Ca ₃ (PO ₄) ₂	Not Listed	Not Listed
Potassium Nitrate, KNO ₃	10 mg/m ³ (8-hr TWA) 3 mg/m ³ (8-hr TWA)	15 mg/m ³ (8-hr TWA) 5 mg/m ³ (8-hr TWA)
Potassium chloride, KCl	Not Listed	Not Listed
Calcium Carbonate, CaCO ₃	Not Listed	15 mg/m ³ TWA total 5 mg/m ³ TWA
Iron sulphate, FeSO ₄ +7H ₂ O	1 mg/m ³ TWA	Not Listed
Iron EDTA, Fe-EDTA	1 mg/m ³ TWA	Not Listed
Manganese sulphate, MnSO ₄	0.2 mg/m ³ TWA	Not Listed
Zinc Sulfate Anhydrous	Not Listed	Not Listed
Boric Acid, H ₃ BO ₃	2 mg/m ³ TWA	Not Listed
Sodium molybdate, Na ₂ MoO ₄ +2H ₂ O	0.5 mg/m ³ TWA	5 mg/m ³ TWA
Potassium sulphate, K ₂ SO ₄	Not Listed	Not Listed
Ammonium Nitrate, NH ₄ NO ₃	N.A.	N.A.
Magnesium sulphate anhydrous, MgSO ₄	Not Listed	Not Listed
Ammonium Sulphate, (NH ₄) ₂ SO ₄	Not Listed	Not Listed
Ammonium phosphate	Not Listed	Not Listed
Magnesium oxide, MgO	10 mg/m ³ TWA	15 mg/m ³ 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

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

10. STABILITY AND REACTIVITY

Chemically Stable:	Yes
Conditions to avoid	Damp or wet conditions. Extreme heat.
Materials to avoid:	Oxidizing agent.
Hazardous decomposition products:	Toxic fumes and gases may be generated. Metal oxides possible.
Possibility of hazardous reactions:	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 ₄ +0H ₂ O	Not listed	Not listed	Not listed
Calciumphosphate, Ca ₃ (PO ₄) ₂	Not listed	Not listed	Not listed
Potassium Nitrate, KNO ₃	Not listed	Not listed	Not listed
Potassium chloride, KCl	Not listed	Not listed	Not listed
Calcium Carbonate, CaCO ₃	Not listed	Not listed	Not listed
Iron sulphate, FeSO ₄ +7H ₂ O	Not listed	Not listed	Not listed
Iron EDTA, Fe-EDTA	Not listed	Not listed	Not listed
Manganese sulphate, MnSO ₄	Not listed	Not listed	Not listed
Zinc Sulfate Anhydrous	Not listed	Not listed	Not listed
Boric Acid, H ₃ BO ₃	Not listed	Not listed	Not listed
Sodium molybdate, Na ₂ MoO ₄ +2H ₂ O	Not listed	Not listed	Not listed
Potassium sulphate, K ₂ SO ₄	Not listed	Not listed	Not listed
Ammonium Nitrate, NH ₄ NO ₃	Not listed	Not listed	Not listed
Magnesium sulphate anhydrous, MgSO ₄	Not listed	Not listed	Not listed
Ammonium Sulphate, (NH ₄) ₂ SO ₄	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
 Health injuries are not known or expected under normal use

Inhalation: Health injuries are not known or expected under normal use

Target organ effects: Irritation.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects:	No data is available on the product itself.
Persistence and degradability:	Inherently biodegradable. Non-persistent.
Bioaccumulative potential:	Does not bioaccumulate.
Mobility:	Water contaminating.
Aquatic toxicity:	May be beneficial to plant life.
Additional ecological information:	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

Waste Disposal Methods:	Apply as fertilizer to field. Dispose of in accordance with local regulations and national regulations.
Contaminated packaging:	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.

DOT (Land)	Not DOT regulated
DOT (AIR)	UN2071, Ammonium Nitrate Based Fertilizer, 9, PGIII
DOT (Vessel)	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 ₄ +0H ₂ O	7758-98-7	10 lb final RQ 4.54 kg final RQ	Not Listed
Calciumphosphate, Ca ₃ (PO ₄) ₂	7758-87-4	Not Listed	Not Listed
Potassium Nitrate, KNO ₃	7757-79-1	Not Listed	Not Listed
Potassium chloride, KCl	7447-40-7	Not Listed	Not Listed
Calcium Carbonate, CaCO ₃	471-34-1	Not Listed	Not Listed
Iron sulphate, FeSO ₄ +7H ₂ 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 ₄	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 ₃ BO ₃	10043-35-3	Not Listed	Not Listed
Sodium molybdate, Na ₂ MoO ₄ +2H ₂ O	7631-95-0	Not Listed	Not Listed
Potassium sulphate, K ₂ SO ₄	7778-80-5	Not Listed	Not Listed
Ammonium Nitrate, NH ₄ NO ₃	6484-52-2	Not listed	Not Listed
Magnesium sulphate anhydrous, MgSO ₄	7487-88-9	Not Listed	Not Listed
Ammonium Sulphate, (NH ₄) ₂ SO ₄	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

NFPA:	Health: 2	Flammability: 1	Reactivity: 0
HMS:	Health: 2	Flammability: 0	Reactivity: 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.

Prepared by: Regulatory Affairs Department.

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