# MATERIAL SAFETY DATA SHEET

**Date stamp:** 20-Nov-2014 **MSDS Ref. No.:** E98300 **Revision Number:** 1.01

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Osmocote® Plus 15-9-12, 3-4 Months Canada
**Description:** Controlled Release Fertilizer

**Company:**
Everris NA Inc.
P.O. Box 3310
Dublin, OH 43016
**Formula No.:** S12716
**Product Number(s):** E98300

**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

## 2. HAZARD(S) IDENTIFICATION

**Classification 67/548/EEC**
**WHMIS hazard class:** D2B

**Labelling**
**Signal Word:** CAUTION

**Precautionary Statements:** May be harmful if swallowed or inhaled. Avoid contact with eyes, skin, and clothing. Wash with soap and water after handling. Avoid breathing dust. Do not ingest. Keep out of reach of children.

**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; NH4NO3 | 6484-52-2 | 40-70 |
| Potassium sulphate; K2SO4 | 7778-80-5 | 15-40 |
| Ammonium phosphate (US) | 7722-76-1 | 15-40 |
| Kieseriet | | 5-10 |
| Coating | PROPRIETARY | 5-10 |
| Calcium phosphate dibasic; CaHPO4 | 7757-93-9 | 1-5 |
| Inert Ingredients | PROPRIETARY | 1-5 |
| Iron (III) Phosphate | 10045-86-0 | 1-5 |
| Iron EDTA; Fe-EDTA | 15708-41-5 | 0.1-1 |
| Manganese sulphate; MnSO4+1H2O | 7785-87-7 | 0.1-1 |
| Sodium borate; Na2B4O7 | 1330-43-4 | 0.1-1 |
| Zinc Sulfate anh; ZnSO4 | 7733-02-0 | <0.1 |
| Sodium molybdate; Na2MoO4+2H2O | 7631-95-0 | <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.

**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 be 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, preferabley 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.
**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:** Avoid subsoil penetration.
**Methods for containment:** Use good housekeeping practices. Clean up promptly by sweeping or vacuum.
**Methods for Cleanup:** 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 | CAS-No | ACGIH: | OSHA: |
|---|---|---|---|
| Ammonium Nitrate; NH4NO3 | 6484-52-2 | N.A. | N.A. |
| Potassium sulphate; K2SO4 | 7778-80-5 | Not Listed | Not Listed |
| Ammonium phosphate (US) | 7722-76-1 | Not Listed | Not Listed |
| Kieseriet | - | Not Listed | Not Listed |
| Coating | PROPRIETARY | Not Listed | Not Listed |
| Calcium phosphate dibasic; CaHPO4 | 7757-93-9 | Not Listed | Not Listed |
| Inert Ingredients | PROPRIETARY | Not Listed | Not Listed |
| Iron (III) Phosphate | 10045-86-0 | 1 mg/m$^3$ TWA | Not Listed |
| Iron EDTA; Fe-EDTA | 15708-41-5 | 1 mg/m$^3$ TWA | Not Listed |
| Manganese sulphate; MnSO4+1H2O | 7785-87-7 | 0.1 mg/m$^3$ TWA | Not Listed |
| Sodium borate; Na2B4O7 | 1330-43-4 | 2 mg/m$^3$ TWA | Not Listed |
| Zinc Sulfate anh; ZnSO4 | 7733-02-0 | Not Listed | Not Listed |
| Sodium molybdate; Na2MoO4+2H2O | 7631-95-0 | 0.5 mg/m$^3$ TWA | 5 mg/m$^3$ TWA |

**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
**Bulk density:** 65-70 lbs/cu.ft.
**Appearance:** granulate
**Color:** Tan, brown
**Flash Point:** not applicable
**Odor:** Fertilizer

## 10. STABILITY AND REACTIVITY

**Chemically Stable:** yes.
**Conditions to Avoid:** Damp or wet conditions. Extreme heat. Take precautionary measures against static discharges.
**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.

**Component Information**

| Ingredients | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| Ammonium Nitrate; NH4NO3 | = 2217 mg/kg ( Rat ) | No information available | > 88.8 mg/L ( Rat ) 4 h |
| Potassium sulphate; K2SO4 | = 6600 mg/kg ( Rat ) | No information available | No information available |
| Ammonium phosphate (US) | = 5750 mg/kg ( Rat ) | > 7940 mg/kg ( Rabbit ) | No information available |
| Calcium phosphate dibasic; CaHPO4 | = 10000 mg/kg ( Rat ) | > 7940 mg/kg ( Rabbit ) | No information available |
| Manganese sulphate; MnSO4+1H2O | = 782 mg/kg ( Rat ) | No information available | No information available |
| Sodium borate; Na2B4O7 | = 2660 mg/kg ( Rat ) | > 2000 mg/kg ( Rabbit ) | No information available |
| Zinc Sulfate anh; ZnSO4 | = 500 mg/kg ( Rat ) | No information available | No information available |
| Sodium molybdate; Na2MoO4+2H2O | = 4233 mg/kg ( Rat ) | > 2000 mg/kg (Rat) | > 2080 mg/m³ ( Rat ) 4 h |

**Chronic Toxicity**

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

| Ingredients | ACGIH - Carcinogens | IARC: | NTP Report on Carcinogens List - | OSHA |
|---|---|---|---|---|
| Sodium borate; Na2B4O7 1330-43-4 | A4 | - | - | - |

**General information:** Very low toxicity for humans and animals.
**Ingestion:** Health injuries are not known or expected under normal use.
**Inhalation:** Health injuries are not known or expected under normal use.
**Sensitization:** None.
**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.

## 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 |
| **IATA (Air)** | UN2071, Ammonium Nitrate Based Fertilizer, 9, PGIII |
| **IMO/IMDG (Vessel)** | UN2071, Ammonium Nitrate Based Fertilizer, 9, PGIII |

## 15. REGULATORY INFORMATION

| Ingredients | CAS-No | CERCLA/SARA 313 | CERCLA/SARA 302 |
|---|---|---|---|
| Ammonium Nitrate; NH4NO3 | 6484-52-2 | Not listed | Not Listed |

**General information:** Contact local authorities for disposal of large quantities of product.

## 16. OTHER INFORMATION

**NFPA:** **Health:** 1 **Flammability:** 0 **Reactivity:** 0

**HMIS:** **Health:** 1 **Flammability:** 0 **Reactivity:** 0

**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.

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