



# Safety Data Sheet

Original Issue Date 26-Mar-2020

Last Revision Date 09-Dec-2021

Version: 1

## 1. IDENTIFICATION

### Product identifier

**Product Name:** Osmocote Blend 20-4-8; 8-9M High Iron  
**Product Number(s):** A92206  
**Formula No.:** S20219

**Description:** Controlled release fertilizer

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

Restricted to professional users

### 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

## 2. HAZARD(S) IDENTIFICATION

Serious eye damage/eye irritation	Category 2A
Specific Target Organ Toxicity (Repeated Exposure)	Category 2

### Label Elements:

#### **Warning**

#### **Hazard Statements:**

Causes serious eye irritation  
May cause damage to organs through prolonged or repeated exposure



**Appearance:** Granules

**Physical state** Solid

**Odor:** characteristic

#### **Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Wear eye protection/ face protection  
Do not breathe dust/fume/gas/mist/vapors/spray

#### **Precautionary Statements - Response**

Get medical advice/attention if you feel unwell  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention

#### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards Not Otherwise Classified (HNOC):**

Not applied

**Other Information**

Causes mild skin irritation. Harmful to aquatic life with long lasting effects.

**Unknown Acute Toxicity:** 1% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%	Trade Secret
Ammonium nitrate; $\text{NH}_4\text{NO}_3$	6484-52-2	30 - 40%	*
Iron sulfate monohydrate (US)	17375-41-6	1 - 5%	*
Iron sulphate; $\text{FeSO}_4 \cdot \text{H}_2\text{O}$	7720-78-7	1 - 5%	*
Manganese sulphate; $\text{MnSO}_4$	7785-87-7	1 - 5%	*
Zinc sulfate; $\text{ZnSO}_4$	7733-02-0	0.1 - 1%	*
Zinc oxide; $\text{ZnO}$	1314-13-2	0.1 - 1%	*
Di copper oxide; $\text{Cu}_2\text{O}$	1317-39-1	0.1 - 1%	*

\* The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST-AID MEASURES

**Description of 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:** Call a poison control center or doctor for treatment advice. Take off contaminated clothing. Immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Inhalation** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a POISON CENTER or doctor.

**Ingestion:** Call a physician or Poison Control Centre immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

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

**Notes to Physician:** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Water.

**Unsuitable Extinguishing Media:** High volume water jet.

**Specific hazards:** no data available.

**Hazardous Combustion Products** Combustion can produce toxic fumes and irritating gases.

**Explosion Data:**

**Sensitivity to Mechanical Impact:** no data available.

**Sensitivity to Static Discharge:** no data available.

**Special Protective Equipment for Firefighters:**

Use personal protective equipment. In the event of fire, wear self-contained breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions:** Wear personal protective equipment.

**Environmental precautions:** Do not allow product to enter the environment uncontrolled.

**Methods and material for containment and cleaning up**

**Methods for containment:** Follow good housekeeping practices.

**Methods for Cleanup:** If material is uncontaminated, collect and reuse as recommended for product.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Handling:** Avoid container breakage.

**Conditions for safe storage, including any incompatibilities**

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

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical name	ACGIH TLV	OSHA:	ACGIH:	IDLH:
Ammonium nitrate; $\text{NH}_4\text{NO}_3$ 6484-52-2	-	N.A.	N.A.	-
Iron sulfate monohydrate (US) 17375-41-6	-	-	1 mg/m <sup>3</sup> TWA	-
Iron sulphate; $\text{FeSO}_4 \cdot \text{H}_2\text{O}$ 7720-78-7	-	-	1 mg/m <sup>3</sup> TWA	-
Manganese sulphate; $\text{MnSO}_4$ 7785-87-7	-	-	0.1 mg/m <sup>3</sup> TWA	500 mg/m <sup>3</sup> IDLH Mn
Zinc oxide; $\text{ZnO}$ 1314-13-2	TWA: 2 mg/m <sup>3</sup> respirable particulate matter STEL: 10 mg/m <sup>3</sup> respirable particulate matter	5 mg/m <sup>3</sup> TWA 15 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWA	500 mg/m <sup>3</sup> IDLH
Di copper oxide; $\text{Cu}_2\text{O}$ 1317-39-1	-	-	1 mg/m <sup>3</sup> TWA	100 mg/m <sup>3</sup> IDLH Cu

**Appropriate engineering controls**

**Engineering Controls** Ensure adequate ventilation, especially in confined areas. Eyewash. Showers.

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

**Eye/face Protection** Wear safety glasses with side shields (or goggles).

**Hand Protection** Neoprene gloves.

<b>Skin and body protection</b>	Lightweight protective clothing.
<b>Respiratory protection</b>	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	Solid
<b>Color:</b>	Multi-colored
<b>Appearance:</b>	granulate
<b>Odor:</b>	Fertilizer

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH:</b>	No data available	
<b>Melting Point/Freezing Point:</b>	Not applicable	
<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>	No data available	
<b>Flammability Limits in Air:</b>		
<b>Upper Flammability Limit:</b>	No data available	
<b>Lower Flammability Limit:</b>	No data available	
<b>Vapor Pressure:</b>	No data available	
<b>Vapour density</b>	No data available	
<b>Relative density</b>	no data available	
<b>Solubility:</b>	no data available	
<b>Solubility in other Solvents:</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	
<b>Explosive Properties:</b>	no data available	
<b>Oxidizing Properties:</b>	no data available	

### Other information

<b>Softening Point:</b>	no data available
<b>Molecular Weight:</b>	no data available
<b>VOC content</b>	No data available
<b>Density:</b>	no data available
<b>Bulk density:</b>	55-65 lbs/cu.ft.

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b> Stable under recommended storage conditions	<b>Remarks:</b>
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**Chemically Stable:** Stable under recommended storage conditions.

**Conditions to Avoid:** Protect from extremes of temperature.

**Materials to avoid**

Contact with strong alkalies, oxidizers, and reducing agents.

**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**

**Information on likely routes of exposure**

**Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin Contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** no data available.

**Numerical measures of toxicity**

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

**Oral LD50** 12,965.30

**Unknown Acute Toxicity:** 1% of the mixture consists of ingredient(s) of unknown toxicity

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium nitrate; $\text{NH}_4\text{NO}_3$ 6484-52-2	= 2217 mg/kg ( Rat )	> 5000 mg/kg	> 88.8 mg/L ( Rat ) 4 h
Iron sulphate; $\text{FeSO}_4 \cdot 1\text{H}_2\text{O}$ 7720-78-7	= 500 mg/kg ( Rat )	-	-
Manganese sulphate; $\text{MnSO}_4$ 7785-87-7	= 2125 mg/kg ( Rat )	-	> 4.98 mg/L (Rat) 4h
Zinc sulfate; $\text{ZnSO}_4$ 7733-02-0	= 1710 mg/kg ( Rat )	-	-
Zinc oxide; $\text{ZnO}$ 1314-13-2	> 5000 mg/kg ( Rat )	-	-
Di copper oxide; $\text{Cu}_2\text{O}$ 1317-39-1	= 470 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	= 2.92 mg/L ( Rat ) 4 h = 3.69 mg/L ( Rat ) 4 h

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

**Skin corrosion/irritation** no data available.

**Serious eye damage/eye irritation** no data available.

**Respiratory or skin sensitization** no data available.

**Germ Cell Mutagenicity** no data available.

**Carcinogenicity** no data available.

Chemical name	ACGIH	IARC	NTP	OSHA
Ammonium nitrate; $\text{NH}_4\text{NO}_3$ 6484-52-2	-	Group 2A	-	X

Reproductive Toxicity no data available.

STOT - Single Exposure no data available.

STOT - Repeated Exposure no data available.

Aspiration Hazard no data available.

## 12. ECOLOGICAL INFORMATION

*The environmental impact of this product has not been fully investigated.*

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Iron sulphate; $\text{FeSO}_4 \cdot \text{H}_2\text{O}$ 7720-78-7	-	LC50: =0.56mg/L (96h, Cyprinus carpio) LC50: =925mg/L (96h, Poecilia reticulata)	-	EC50: 6.15 - 9.26mg/L (48h, Daphnia magna) EC50: =152mg/L (48h, Daphnia magna)
Zinc sulfate; $\text{ZnSO}_4$ 7733-02-0	EC50: =0.056mg/L (72h, Pseudokirchneriella subcapitata)	LC50: 0.03 - 0.05mg/L (96h, Oncorhynchus mykiss) LC50: 0.168 - 0.25mg/L (96h, Pimephales promelas) LC50: 0.218 - 0.42mg/L (96h, Pimephales promelas) LC50: 0.23 - 0.48mg/L (96h, Pimephales promelas) LC50: 0.34 - 0.93mg/L (96h, Oncorhynchus mykiss) LC50: 0.48 - 1.72mg/L (96h, Poecilia reticulata) LC50: 16.85 - 27.18mg/L (96h, Cyprinus carpio) LC50: 3 - 4.6mg/L (96h, Lepomis macrochirus) LC50: 3.55 - 6.32mg/L (96h, Lepomis macrochirus) LC50: 49.23 - 64.16mg/L (96h, Poecilia reticulata) LC50: =0.06mg/L (96h, Pimephales promelas) LC50: =0.15mg/L (96h, Cyprinus carpio) LC50: =0.162mg/L (96h, Oncorhynchus mykiss) LC50: =0.63mg/L (96h, Poecilia reticulata)	-	EC50: 0.538 - 0.908mg/L (48h, Daphnia magna) EC50: =0.75mg/L (48h, Daphnia magna)
Zinc oxide; $\text{ZnO}$ 1314-13-2	-	LC50: =1.55mg/L (96h, Danio rerio)	-	-
Di copper oxide; $\text{Cu}_2\text{O}$ 1317-39-1	EC50: 0.021 - 0.037mg/L (96h, Pseudokirchneriella subcapitata) EC50: 0.055 - 0.076mg/L	-	-	EC50: =0.51mg/L (48h, Daphnia magna)

	(96h, Pseudokirchneriella subcapitata) EC50: =65mg/L (96h, Desmodesmus subspicatus)			
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**Persistence and Degradability:** no data available.

**Bioaccumulation** No information available.

Chemical name	Partition coefficient
Ammonium nitrate; NH <sub>4</sub> NO <sub>3</sub> 6484-52-2	-3.1

**Other adverse effects** No information available.

### 13. DISPOSAL CONSIDERATIONS

**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.

### 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 regulated
<b>DOT (AIR)</b>	UN2071, Ammonium Nitrate Based Fertilizer, 9, PGIII
<b>DOT (Vessel)</b>	UN2071, Ammonium Nitrate Based Fertilizer, 9, PGIII
<b>IATA (Air)</b>	UN2071, Ammonium Nitrate Based Fertilizer, 9, PGIII
<b>IMO/IMDG (Vessel)</b>	UN2071, Ammonium Nitrate Based Fertilizer, 9, PGIII

### 15. REGULATORY INFORMATION

**Federal Regulations:**

**SARA 313:**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories:**

<b>Acute health hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

**CWA (Clean Water Act):**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	Clean Water Act - Priority Pollutants	Clean Water Act - Hazardous Substances
Iron sulphate; FeSO <sub>4</sub> +1H <sub>2</sub> O 7720-78-7	-	-	-	Present
Zinc sulfate; ZnSO <sub>4</sub> 7733-02-0	-	-	-	Present

**CERCLA:**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Chemical name	CERCLA/SARA 313	CERCLA/SARA RQ
Ammonium nitrate; NH <sub>4</sub> NO <sub>3</sub> 6484-52-2	Not listed	-
Iron sulphate; FeSO <sub>4</sub> +1H <sub>2</sub> O 7720-78-7	1000 lb final RQ 454 kg final RQ	-
Zinc sulfate; ZnSO <sub>4</sub> 7733-02-0	1000 lb final RQ 454 kg final RQ	-

**California Proposition 65:**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations:**

**State Regulations (RTK):** no data available

**U.S. EPA Label information:**

**EPA Pesticide Registration Number:** Not applied

**16. OTHER INFORMATION**

**NFPA:** Health hazards 3 Flammability 0 Reactivity: 0

**HMIS:** Health hazards - Flammability - Reactivity: 0

**Prepared by** Regulatory Affairs Department  
**Original Issue Date** 26-Mar-2020  
**Last Revision Date** 09-Dec-2021  
**Reason for revision** A component has been added to the formulation. SEE SECTION 2.

**Disclaimer**

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.

**End of Safety Data Sheet**