

Safety Data Sheet

Issue Date 30-Dec-2013

Revision Date 10-Oct-2019

Version: 13

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name Osmocote Exact Mini 5-6M; 15-9-11+2MgO+TE
Product Code: 88520210EA
Synonyms: Osmocote Exact Mini 15-3.9-9.1+1.2Mg+TE
Pure substance/mixture Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Fertilizer (PC12). Restricted to professional users.
Uses Advised Against: Consumer use [SU 21].

1.3. Details of the supplier of the safety data sheet

Everris International B.V. Nijverheidsweg 1-5; 6422 PD Heerlen (NL); Tel: +31 (0)45-5609100; Fax: +31 (0)45-5609190.

For further information, please contact: INFO-MSDS@EVERRIS.COM.

1.4. Emergency telephone number: IN CASE OF AN EMERGENCY CALL: +44 1235 239 670 (24h).

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Mixture

Regulation (EC) No 1272/2008 (CLP)

Chronic aquatic toxicity	Category 3 - (H412)
---------------------------------	---------------------

2.2. Label elements

Hazard Statements:

H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements:

P501 - Dispose of container in accordance with local regulation

Other hazards (UN-GHS)

Toxic to aquatic life

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical Name	EC-No.	CAS No	Weight %	Classification according Regulation (EC) 1272/2008 [CLP]	REACH registration number
Ammonium nitrate; NH ₄ NO ₃	229-347-8	6484-52-2	25 - 40%	Eye Irrit. 2 (H319) Ox. Sol. 3 (H272)	01-2119490981-27
Copper sulphate anhydrous; CuSO ₄	231-847-6	7758-98-7	0.1 - 1%	Eye Dam. 1 (H318) Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	01-2119520566-40
Manganese sulphate; MnSO ₄ +1H ₂ O	232-08-99	7785-87-7	0.1 - 1%	STOT RE 2 (H373) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)	01-2119456624-35

Sodium borate; Na ₂ B ₄ O ₇	215-540-4	1330-43-4	0.1 - 1%	Eye Irrit. 2 (H319) Repr. 1B (H360FD)	01-2119490790-32
--	-----------	-----------	----------	--	------------------

Component	SVHC candidates
Sodium borate; Na ₂ B ₄ O ₇ 1330-43-4 (0.1 - 1%)	Present

Full text of H- and EUH-phrases: see section 16.

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice:	First aid measures should be executed by trained personnel only.
Inhalation	If not breathing, give artificial respiration. If symptoms persist, call a physician. If fumes from reactions are inhaled, move to fresh air immediately.
Skin Contact:	If skin irritation persists, call a physician.
Eye Contact:	Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.
Ingestion:	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

4.2. Most important symptoms and effects, both acute and delayed

None under normal processing

4.3. Indication of any immediate medical attention and special treatment needed

None under normal processing.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media: Water.

Unsuitable Extinguishing Media: High volume water jet. Dry powder. Sand. Foam.

5.2. Special hazards arising from the substance or mixture

In case of fire, the product will smoulder even without the presence of external oxygen. In these conditions the product will show self sustaining decomposition. The best method to extinguish the fire is to cool the decomposition front with water. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Hazardous Combustion Products:

Carbon oxides. Phosphorus oxides. Ammonia. Nitrogen oxides (NO_x).

5.3. Advice for firefighters

Coordinate fire extinguishing measures to fire in surrounding area. In the event of fire and/or explosion do not breathe fumes. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray to cool fire exposed surfaces.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Wear personal protective equipment. Evacuate personnel to safe areas.

For Emergency Responders: Use personal protection recommended in Section 8.

6.2. Environmental precautions

Do not allow material to contaminate ground water system.

6.3. Methods and material for containment and cleaning up

Methods for Containment:

Prevent further leakage or spillage if safe to do so.

Methods for Cleanup:

Take up mechanically and collect in suitable container for disposal.

6.4. Reference to other sections

§ 8, 12, 13.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

General hygiene considerations:

Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. When using, do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/storage conditions:

Keep container tightly closed in a dry and well-ventilated place. For quality reasons: Keep out of reach of direct sunlight, store under dry conditions, partly used packaging should be closed well. Keep away from flammable material.

Packaging Materials:

PGS-7 (The Netherlands)

Store in original container. Store in a closed container.

2/B

7.3. Specific end use(s)

Specific use(s)

Fertilizer; www.everris.com; Read and follow label instructions

Exposure scenario

Mixture. Not required.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

<i>Ammonium nitrate; NH₄NO₃</i>	
Australia	N.A.
Czech Republic OEL	10.0 mg/m ³ TWA
<i>Copper sulphate anhydrous; CuSO₄</i>	
Austria	STEL 4 mg/m ³ TWA: 1 mg/m ³
Australia	N.A.
Finland	TWA: 0.02 mg/m ³
Poland	TWA: 0.2 mg/m ³
Russia TWA	0.5 mg/m ³ TWA 1258
Switzerland	STEL: 0.2 mg/m ³ TWA: 0.1 mg/m ³
<i>Manganese sulphate; MnSO₄+1H₂O</i>	
Austria	STEL 2 mg/m ³ TWA: 0.5 mg/m ³
Australia	0.2 mg/m ³
Belgium - 8 Hr TWA	0.2 mg/m ³
Denmark	TWA: 0.2 mg/m ³
Finland	TWA: 0.02 mg/m ³ TWA: 0.2 mg/m ³
Ireland	TWA: 0.2 mg/m ³ STEL: 0.6 mg/m ³
Japan	0.2 mg/m ³ OEL Mn
NL MAC - TWA:	STEL: 0.05 mg/m ³ TWA: 0.2 mg/m ³
Norway	TWA: 0.1 mg/m ³ STEL: 0.1 ppm
Poland	TWA: 0.05 mg/m ³
Portugal	TWA: 0.2 mg/m ³
Spain - Valores Limite Ambientales - VLE	TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³
Switzerland	TWA: 0.5 mg/m ³
UK EH40 WEL (8h)	5 mg/m ³
<i>Sodium borate; Na₂B₄O₇</i>	
Australia	1 mg/m ³ TWA

Belgium - 8 Hr TWA	2 mg/m ³ TWA borate
Denmark	TWA: 1 mg/m ³
FR - OEL - 8h VMEs	TWA: 1 mg/m ³
Iceland - OEL - 8 Hour	1 mg/m ³ TWA
Ireland	TWA: 1 mg/m ³ STEL: 3 mg/m ³
Korea - ISHA - OEL - TWAs	1 mg/m ³ TWA (anhydrous, Serial No. 244)
Malaysia	1 mg/m ³ TWA
Norway	TWA: 1 mg/m ³ STEL: 2 mg/m ³
Portugal	STEL: 6 mg/m ³ TWA: 2 mg/m ³
Spain - Valores Limite Ambientales - VLE	STEL: 6 mg/m ³ TWA: 2 mg/m ³
Singapore - OEL:PELs	1 mg/m ³ PEL
Switzerland	STEL: 0.8 mg/m ³
UK EH40 WEL (8h)	1 mg/m ³ TWA

Derived No Effect Level (DNEL)

Component	Oral	Dermal	Inhalation
Ammonium nitrate; NH ₄ NO ₃ 6484-52-2 (25 - 40%)	36 mg/m ³	5.12 mg/kg bw/day	8.9 mg/m ³
Manganese sulphate; MnSO ₄ +1H ₂ O 7785-87-7 (0.1 - 1%)	37.6 mg/m ³	0.004 mg/kg bw/day	0.2 mg/m ³

Predicted No Effect Concentration (PNEC)

No data available

Component	Fresh Water	Freshwater sediment	Sea Water	Sea sediment	Soil	Impact on Sewage Treatment
Ammonium nitrate; NH ₄ NO ₃ 6484-52-2 (25 - 40%)						18 mg/l
Copper sulphate anhydrous; CuSO ₄ 7758-98-7 (0.1 - 1%)	7.8 µg/l	87 mg/kg	5.2 µg/l	676 mg/kg	65 mg/kg	230 µg/l
Manganese sulphate; MnSO ₄ +1H ₂ O 7785-87-7 (0.1 - 1%)	0.013 mg/l	0.011 mg/kg	0 mg/l	0.001 mg/kg	25.1 mg/kg	25.1 mg/kg

8.2. Exposure controls**Personal protective equipment****Eye/Face Protection**

Wear eye/face protection

Hand protection

Nitrile rubber (0.26 mm). Break through time. > 8 h.

Respiratory Protection

Not required; except in case of aerosol formation. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit

Skin and body protection:

Lightweight protective clothing

Hygiene Measures:

When using, do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties****Physical State:**

Solid

Appearance:

Granules

Color:

brown.

Odor:

None no data available

Melting Point/Freezing Point:

No data available

Boiling Point/Range:

Solid. Not applicable.

Flash Point:

Solid. Not applicable.

Evaporation Rate:	Solid. Not applicable.
Flammability (solid, gas):	Not flammable
Vapor Pressure:	Solid. Not applicable.
Vapour density	Solid. Not applicable.
Relative density	No data available
Water Solubility:	No data available
Solubility(ies)	No data available
Partition Coefficient:	Solid. Not applicable.
Autoignition Temperature:	No data available
Decomposition temperature:	No data available
Explosive Properties:	Doesn't present explosion hazard.
9.2. Other information	
VOC Content (%):	Solid. Not applicable.

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Not reactive.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Keep away from catalysts like derivatives of hexavalent chromium and metal halides. Keep away from flammable products (fuels) like charcoal, wood, flour, soot etc.

10.6. Hazardous decomposition products

None under normal processing. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Product Information

If this product is a mixture, the classification is not based on toxicology studies for this product, but is based solely on toxicology studies for ingredients found within this product. More detailed substance and/or ingredient information may be provided in the other sections of this SDS

Information on the Likely Routes of Exposure (inhalation, ingestion, skin and eye contact):

Inhalation	Inhalation of dust in high concentration may cause irritation of respiratory system.
Eye contact	May cause slight irritation.
Skin Contact	May cause irritation.
Ingestion	May cause gastrointestinal discomfort if consumed in large amounts.

Information on Toxicological Effects

None known

Acute Toxicity

Unknown Acute Toxicity: 15% of the mixture consists of ingredient(s) of unknown toxicity.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium nitrate; NH ₄ NO ₃	= 2217 mg/kg (Rat)	> 5000 mg/kg	> 88.8 mg/L (Rat) 4 h
Copper sulphate anhydrous; CuSO ₄	= 300 mg/kg (Rat)	= 1000 mg/kg (Rabbit)	
Manganese sulphate; MnSO ₄ +1H ₂ O	= 2125 mg/kg (Rat)		> 4.98 mg/L (Rat) 4h

Sodium borate; Na ₂ B ₄ O ₇	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2 mg/m ³ (Rat) 4 h
--	----------------------	-------------------------	-----------------------------------

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

If this product is a mixture, the classification is not based on toxicology studies for this product, but is based solely on toxicology studies for ingredients found within this product. More detailed substance and/or ingredient information may be provided in the other sections of this SDS

Serious eye damage/eye irritation	Classification based on individual ingredients of the mixture.
Respiratory or skin sensitization	Classification based on individual ingredients of the mixture.
Germ Cell Mutagenicity	Classification based on individual ingredients of the mixture.
Carcinogenicity	Classification based on individual ingredients of the mixture.
Reproductive Toxicity	Classification based on individual ingredients of the mixture.
STOT - Single Exposure	Classification based on individual ingredients of the mixture.
STOT - Repeated Exposure	Classification based on individual ingredients of the mixture.
Aspiration Hazard	Classification based on individual ingredients of the mixture.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity**Ecotoxicity****Unknown Aquatic Toxicity**

Should not be released into the environment
15% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Ammonium nitrate; NH ₄ NO ₃	-	65 - 85: 48 h Cyprinus carpio mg/L LC50 semi-static	-	-
Copper sulphate anhydrous; CuSO ₄	-	0.1: 96 h Oncorhynchus mykiss mg/L LC50	-	0.024: 48 h Daphnia magna mg/L EC50
Sodium borate; Na ₂ B ₄ O ₇	158: 96 h Desmodesmus subspicatus mg/L	340: 96 h Limanda limanda mg/L LC50	-	1085 - 1402: 48 h Daphnia magna mg/L LC50

12.2. Persistence and degradability**Persistence and Degradability:**

No persistent or cumulative effects were observed.

12.3. Bioaccumulative potential**Bioaccumulation:**

Does not bioaccumulate.

Chemical Name	LOGPOW
Ammonium nitrate; NH ₄ NO ₃	-3.1

12.4. Mobility in soil

No data available.

12.5. PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. 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.

Other Information Use up product completely. Packaging material is industrial waste.

Section 14: TRANSPORT INFORMATION

IMO / IMDG

14.1
UN-No: 2071

14.2
Proper shipping name: AMMONIUM NITRATE BASED FERTILIZER

14.3
Hazard Class: 9

14.4
Packing group: III

Chemical Name	IMDG - Marine Pollutants
Copper sulphate anhydrous; CuSO ₄ 7758-98-7 (0.1 - 1%)	IMDG regulated marine pollutant (Listed in the index, listed under Copper sulphate, anhydrous, hydrates and solution)

Marine Pollutant: Not regulated

14.6
EmS: F-H / S-Q

Special Provisions 186, 193

14.7
Bulk transport according Annex II of MARPOL and IBC Code No data available

ADR/RID

14.1
UN-No: Not regulated

14.2
Proper shipping name: Not regulated

14.3
Hazard Class: Not regulated

14.4
Packing group: Not regulated

14.5
Environmental Hazard Not regulated

14.6
Special Provisions None

IATA

14.1
UN-No: 2071

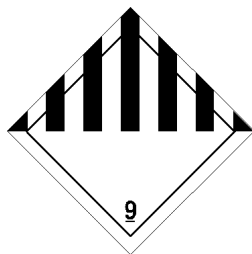
14.2
Proper shipping name: AMMONIUM NITRATE BASED FERTILIZER

14.3
Hazard Class: 9

14.4
Packing group: III

14.5
Environmental Hazard Not regulated

14.6
Special Provisions A89, A90



Section 15: REGULATORY INFORMATION

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

Belgium

Component	Belgium - Major Accidents - Qualifying Quantities for Safety Reporting	Belgium - Major Accidents - Qualifying Quantities for Accident Prevention
Ammonium nitrate; NH ₄ NO ₃ 6484-52-2 (25 - 40%)	2500 tonne (technical grade; (a) this applies to Ammonium nitrate in which the Nitrogen content as a result of Ammonium nitrate is (i) between 24.5% and 28% by weight and which contain ≤0.4% total combustible or (ii) >28% by weight and which contain ≤0.2% combustible substances (b) aqueous Ammonium nitrate solutions in which the concentration of Ammonium nitrate is >80% by weight)	350 tonne

Denmark

Denmark

B

France

ICPE

Classified installation: article 4702

Germany

LGK (Germany)

No data available

Component	German WGK Section
Ammonium nitrate; NH ₄ NO ₃ 6484-52-2 (25 - 40%)	1
Copper sulphate anhydrous; CuSO ₄ 7758-98-7 (0.1 - 1%)	2
Manganese sulphate; MnSO ₄ +1H ₂ O 7785-87-7 (0.1 - 1%)	2
Sodium borate; Na ₂ B ₄ O ₇ 1330-43-4 (0.1 - 1%)	1

Component	EU - Explosives Precursors Marketing and Use (98/2013) - Substances Subject to Suspicious Transactions Reporting	EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances
Ammonium nitrate; NH ₄ NO ₃ 6484-52-2 (25 - 40%)	Present (in concentration of 16% by weight of Nitrogen in relation to Ammonium nitrate or higher)	Use restricted. See item 58. (Conditions of restrictions 27 June 2010)
Sodium borate; Na ₂ B ₄ O ₇ 1330-43-4 (0.1 - 1%)		Use restricted. See item 30.

Component	EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances for Eventual Inclusion in Annex XIV
Sodium borate; Na ₂ B ₄ O ₇ 1330-43-4 (0.1 - 1%)	Reason for inclusion Toxic for reproduction, Article 57c (215-540-4)

15.2 Chemical safety assessment

Substance(s) usage is covered according to Reach regulation 1907/2006

Take note of Dir. 98/24/EC on the protection of the health and safety of workers from risks related to chemical agents at work

Chemical Name	Restricted substance per REACH Annex	Substance subject to authorization per

	XVII	REACH Annex XIV
Ammonium nitrate; NH ₄ NO ₃	Use restricted. See item 58.	
Sodium borate; Na ₂ B ₄ O ₇	Use restricted. See item 30.	

Chemical Name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Ammonium nitrate; NH ₄ NO ₃	350	2500

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

- H360FD - May damage fertility. May damage the unborn child
- H319 - Causes serious eye irritation
- H272 - May intensify fire; oxidizer
- H302 - Harmful if swallowed
- H318 - Causes serious eye damage
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects
- H315 - Causes skin irritation
- H411 - Toxic to aquatic life with long lasting effects

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

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.

Classification procedure

- Calculation method
- Expert judgment and weight of evidence determination

Key literature references and sources for data

According to EC Regulation 1907/2006 (Reach), Regulation EU No. 2015/830. Regulation (EC) No 1272/2008 (CLP).

Prepared by

Regulatory Affairs Department (INFO-MSDS@EVERRIS.COM)

Issue Date

30-Dec-2013

Restrictions on use

Restricted to professional users

Reason for revision

*** Indicates changes since the last revision. This version replaces all previous versions

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.