

Safety Data Sheet

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Version: 2

Section 1: IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product identifier

Product Name Osmocote Exact Standard 3-4M
Product ID 88400225AU

Other means of identification

Proper shipping name AMMONIUM NITRATE BASED FERTILIZER

Synonyms: Osmocote Exact Standard 16-3.9-10+1.2Mg+TE

Recommended use of the chemical and restrictions on use

Recommended Use Fertilizer (PC12). Restricted to professional users.

Details of manufacturer or importer

Manufacturer

Everris Australia Pty Ltd, 211/33 Lexington Drive, Bella Vista, NSW 2153, Australia. Tel: +61(2) 8801 3300

E-mail address INFO-MSDS@EVERRIS.COM

Emergency telephone number

Australia: (02) 8014 4558

New Zealand: (09) 9929 1483

Section 2: HAZARD(S) IDENTIFICATION

GHS Classification

Mixture

Not a hazardous substance or mixture in Australia or New Zealand according to the Globally Harmonized System of classification.

Label elements

Hazard statements

Not a hazardous substance or mixture in Australia or New Zealand according to the Globally Harmonized System of classification.

Other hazards which do not result in classification

No hazards to be especially mentioned

Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS IN ACCORDANCE WITH SCHEDULE 8

Substance

Chemical name	CAS No	EC No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Ammonium nitrate; NH_4NO_3	6484-52-2	229-347-8	30 - 60%	Eye Irrit. 2 (H319) Ox. Sol. 3 (H272)	01-2119490981-27
Iron sulphate; $\text{FeSO}_4 \cdot \text{H}_2\text{O}$	7720-78-7	231-753-5	1 - 5%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	01-2119513203-57

				Acute Tox. 4 (H302)	
Copper sulphate anhydrous; CuSO ₄	7758-98-7	231-847-6	0.1 - 1%	Skin irrit. 2 (H319) Eye irrit. 2 (H315) Acute Tox. 4 (H302) Aquatic Chronic 1 (H410)	01-2119520566-40
Manganese sulphate; MnSO ₄ ·1H ₂ O	7785-87-7	232-089-9	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	1330-43-4	215-540-4	0.1 - 1%	Eye Irrit. 2 (H319) Repr. 1B (H360FD)	01-2119490790-32

44% of the other ingredients are determined not be hazardous.

Section 4: FIRST AID MEASURES

Description of first aid measures

General advice	First aid measures should be executed by trained personnel only.
Inhalation	Remove to fresh air. In the case of inhalation of aerosol/mist consult a physician if necessary. Possible symptoms are coughing and/or dyspnoea. If breathing is difficult, give oxygen.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin Contact	Wash skin with soap and water. Get medical attention if irritation develops and persists.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Possible symptoms are nausea and/or vomiting. If a person vomits when lying on his back, place him in the recovery position. Do not induce vomiting without medical advice. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms no data available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIREFIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media	CO ₂ , dry chemical, dry sand, alcohol-resistant foam.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams. Dry chemical. Foam.
Hazardous Combustion Products	Carbon oxides. Phosphorus oxides. Ammonia. Nitrogen oxides (NO _x).

Special protective actions for fire-fighters

Special protective equipment for fire-fighters Coordinate fire extinguishing measures to fire in surrounding area.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Avoid generation of dust.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Do not flush into surface water or sanitary sewer system. Prevent product from entering drains. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

Section 7: HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED**Precautions for safe handling**

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Use personal protection equipment.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep container closed when not in use. Keep in a dry, cool and well-ventilated place. Protect from sunlight.

Incompatible materials None known based on information supplied.

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION**Control parameters**

Copper sulphate anhydrous; CuSO₄	
Australia	N.A.
Manganese sulphate; MnSO₄·1H₂O	
Australia	0.2 mg/m ³
Sodium borate; Na₂B₄O₇	
Australia	1 mg/m ³ TWA

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face Protection No special protective equipment required.

Skin and body protection: No special protective equipment required.

Hand Protection Nitrile rubber. Break through time >8h.

Environmental exposure controls no data available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid
Appearance:	Granules
Color:	brown
Odor:	Fertilizer.
Odor Threshold:	No data available

pH	No data available
Melting Point/Freezing Point:	No data available
Boiling Point/Range:	No data available
Flash Point:	No data available
Evaporation Rate:	no data available
Flammability (solid, gas):	Non-flammable
Vapor Pressure:	No data available
Vapour density	No data available
Water Solubility:	no data available
Partition Coefficient:	no data available
Autoignition Temperature:	No data available
Hyphen	no data available
Kinematic Viscosity:	No data available
Dynamic Viscosity:	no data available

Other information

Softening Point:	no data available
Molecular Weight:	no data available
VOC Content (%)	No data available
Particle Size	
Particle Size Distribution	

Section 10: STABILITY AND REACTIVITY

Reactivity Not reactive.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Hazardous Decomposition Products: Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Conditions to Avoid:

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

Incompatible materials

Incompatible materials None known based on information supplied.

Hazardous decomposition products

Hazardous Decomposition Products None known based on information supplied.

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity**Information on likely routes of exposure****Product Information**

Inhalation	May cause irritation of respiratory tract.
Eye contact	May cause redness, itching, and pain.
Skin Contact	May cause irritation.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

Symptoms no data available.

Numerical measures of toxicity - Product Information

Unknown acute toxicity 0 % of the mixture consists of ingredient(s) of unknown toxicity

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium nitrate; NH_4NO_3	= 2217 mg/kg (Rat)	> 5000 mg/kg	> 88.8 mg/L (Rat) 4 h
Iron sulphate; $\text{FeSO}_4 \cdot 1\text{H}_2\text{O}$	= 500 mg/kg (Rat)	-	.?
Copper sulphate anhydrous; CuSO_4	= 300 mg/kg (Rat)	= 1000 mg/kg (Rabbit)	.?
Manganese sulphate; $\text{MnSO}_4 \cdot 1\text{H}_2\text{O}$	= 2125 mg/kg (Rat)	-	> 4.98 mg/L (Rat) 4h
Sodium borate; $\text{Na}_2\text{B}_4\text{O}_7$	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2 mg/m ³ (Rat) 4 h

See section 16 for terms and abbreviations

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

skin corrosion/irritation	Classification based on individual ingredients of the mixture.
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

Ecotoxicity

Ecotoxicity Do not allow product to enter the environment uncontrolled.

Unknown aquatic toxicity 6 % of the mixture consists of component(s) of unknown hazards to the aquatic

environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Iron sulphate; FeSO ₄ ·1H ₂ O	-	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)
Copper sulphate anhydrous; CuSO ₄	-	LC50: =0.1mg/L (96h, Oncorhynchus mykiss)	-	0.024: 48 h Daphnia magna mg/L EC50
Sodium borate; Na ₂ B ₄ O ₇	158: 96 h Desmodesmus subspicatus mg/L	LC50: =340mg/L (96h, Limanda limanda)	-	LC50: 1085 - 1402mg/L (48h, Daphnia magna)

Persistence and degradability**Persistence and Degradability:** no data available.**Bioaccumulative potential****Bioaccumulation** No information available.**Mobility****Mobility in soil** no data available.**Mobility** no data available.

Chemical name	Partition coefficient
Ammonium nitrate; NH ₄ NO ₃	-3.1

Other adverse effects**Other adverse effects** No information available.**Section 13: DISPOSAL CONSIDERATIONS****Waste Treatment Methods:****Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.**Contaminated packaging** Do not reuse empty containers.**Section 14: TRANSPORT INFORMATION****ADG** Not regulated**IATA**

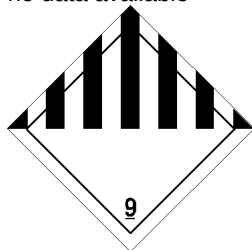
UN number or ID number 2071
Proper shipping name: AMMONIUM NITRATE BASED FERTILIZER
Transport hazard class(es) 9
Packing group III
Special Provisions A89, A90

IMDG

UN number or ID number 2071
Proper shipping name: AMMONIUM NITRATE BASED FERTILIZER
Transport hazard class(es) 9
Packing group: III
EmS: F-H / S-Q
Special Provisions 186, 193

Marine Pollutant: Not regulated

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



Section 15: REGULATORY INFORMATION

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

National regulations

New Zealand:

Hazardous Substances Regulations

Not regulated

Australia

See section 8 for national exposure control parameters

International Inventories:

TSCA

This product complies with USINV

ENCS

This product complies with encs:

Australian Inventory of Chemical Substances

This product does not comply with AICS

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

AICS - Australian Inventory of Chemical Substances

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applied

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

Section 16: ANY OTHER RELEVANT INFORMATION

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

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Revision Note Not applied

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

ADG: Australian Dangerous Goods code

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.

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet