Safety Data Sheet

Issue Date: 01-May-2014 **Revision Date:** 20-Jul-2017 **Version:** 1

Section 1: IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Identifier:

Product Name: Osmocote Exact Protect 12-14M

Product ID: 88690225AU

Other Means of Identification:

Proper shipping name AMMONIUM NITRATE BASED FERTILIZER

UN Number 2071

Synonyms: Osmocote Exact Protect 14-3.5-9.1 +1.2Mg +TE

Recommended Use of the Chemical and Restrictions on Use:

Recommended Use: Fertilizer. 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

Emergency Telephone Numbers:
Australia: (02) 8014 4558
New Zealand: (09) 9929 1483

Section 2: HAZARD(S) IDENTIFICATION

GHS - Classification
Mixture

Chronic aquatic toxicity, Category 3 (H412)

Label elements

Signal word
None

Hazard statements
H412 - Harmful to aquatic life with long lasting effects

Other hazards

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

Potassium sulphate; K_2SO_4	7778-80-5	231-915-5	10 - 30%		01-2119489411-34
Iron sulphate; $FeSO_4+1H_2O$	7720-78-7	231-753-5	0.1 - 1%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H302)	01-2119513203-57
Copper sulphate anh; $CuSO_4$	7758-98-7	231-847-6	0.1 - 1%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	01-2119520566-40
Manganese sulphate; $MnSO_4+1H_2O$	7785-87-7	232-08-99	0.1 - 1%	STOT RE 2 (H373) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)	01-2119456624-35
Sodium borate; $Na_2B_4O_7$	1330-43-4	215-540-4	0.1 - 1%	Eye Irrit. 2 (H319) Repr. 1B (H360FD)	01-2119490790-32

43% of the other ingredients are determined not be hazardous.

Section 4: FIRST AID MEASURES

First Aid Measures:

General advice First aid measures should be executed by trained personnel only.

Inhalation Dusty conditions are unlikely if product is used as intended. However, if prolonged inhalation of dust occurs, remove casualty to fresh air. If symptoms persist, call a physician.

Eye contact Rinse eyes with water as a precaution. If eye irritation persists: Get medical advice/attention.

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. Do NOT induce vomiting. Consult a physician if necessary.

Most Important Symptoms and Effects (Acute and Chronic):

Symptoms No information 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 Water.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams. Dry chemical. Foam.

Specific hazards arising from the chemical 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 (NOx).

Special protective actions for fire-fighters

Special protective equipment for fire-fighters	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.
Hazchem code	1Z

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 Cleanup:

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	Strong oxidizing agents, strong acids, and strong bases. Strong reducing agents. Flammable materials. Keep away from catalysts like derivates of hexavalent chromium and metal halides. Keep away from flammable products (fuels) like charcoal, wood, flour, soot etc.

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control Parameters:

Ammonium Nitrate; NH_4NO_3	
Australia	**N.A.**
Copper sulphate anh; $CuSO_4$	
Australia	**N.A.**
Manganese sulphate; $MnSO_4+1H_2O$	
Australia	**0.2 mg/m³**
Sodium borate; $Na_2B_4O_7$	
Australia	**1 mg/m³ TWA**

Appropriate Engineering Controls:

Engineering Controls None under normal use conditions.

Individual Protection Measures, Such as Personal Protective Equipment:

Eye/face Protection Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

Skin and body protection Lightweight protective clothing.

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

Respiratory protection In case of insufficient ventilation wear suitable respiratory equipment.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties:

Physical State:	Solid
Appearance:	Granules
Color:	brown
Odor:	Not significant.
Odor Threshold:	No information available
Bulk Density:	990-1036 kg/m^3

pH:	No information available
No information available	
Melting Point/Freezing Point:	No information available
Boiling Point/Range:	No information available
Flash Point:	No information available
Evaporation Rate:	No information available
Flammability (solid, gas):	Non-flammable
Vapor Pressure:	No information available
Vapor Density:	No information available
Water Solubility:	Soluble in water
Partition Coefficient:	No information available
Autoignition Temperature:	No information available
Decomposition Temperature:	No information available
Kinematic Viscosity:	No information available
Dynamic Viscosity:	No information available

Other Information:

Softening Point:	No information available
Molecular Weight:	No information available
VOC Content (%):	No information available
Bulk Density:	990-1036 kg/m^3
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 Strong oxidizing agents, strong acids, and strong bases. Strong reducing agents. Flammable materials. Keep away from catalysts like derivates of hexavalent chromium and metal halides. Keep away from flammable products (fuels) like charcoal, wood, flour, soot etc.

Hazardous Decomposition Products:

Hazardous Decomposition Products: None known based on information supplied.

Section 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

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

Product Information .

Inhalation May cause irritation of respiratory tract.

Eye contact May cause irritation.

Skin Contact May cause irritation.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

Symptoms No information available.

Numerical Measures of Toxicity - Product Information:

Unknown acute toxicity 8 % of the mixture consists of ingredient(s) of unknown toxicity

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium Nitrate; NH_4NO_3	= 2217 mg/kg (Rat)	-	> 88.8 mg/L (Rat) 4 h
Potassium sulphate; K_2SO_4	= 6600 mg/kg (Rat)	-	-
Iron sulphate; $FeSO_4+1H_2O$	= 500 mg/kg (Rat)	-	-
Copper sulphate anh; $CuSO_4$	= 300 mg/kg (Rat)	= 1000 mg/kg (Rabbit)	-
Manganese sulphate; $MnSO_4+1H_2O$	= 782 mg/kg (Rat)	-	-
Sodium borate; $Na_2B_4O_7$	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-

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 See section 2 for classified hazards based on component information.

Serious eye damage/eye irritation See section 2 for classified hazards based on component information.

Respiratory or skin sensitization See section 2 for classified hazards based on component information.

Germ Cell Mutagenicity No information available.

Carcinogenicity No information available.

Reproductive Toxicity No information available.

STOT - Single Exposure No information available.

STOT - Repeated Exposure No information available.

Aspiration Hazard No information available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity Do not allow product to enter the environment uncontrolled.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Ammonium Nitrate; NH_4NO_3	-	65 - 85: 48 h Cyprinus carpio mg/L LC50 semi-static	-	-
Potassium sulphate; K_2SO_4	2900: 72 h Desmodesmus subspicatus mg/L EC50	653: 96 h Lepomis macrochirus mg/L LC50 3550: 96 h Lepomis macrochirus mg/L LC50 static 510 - 880: 96 h Pimephales promelas mg/L LC50 static	-	890: 48 h Daphnia magna mg/L EC50
Copper sulphate anh; $CuSO_4$	-	0.1: 96 h Oncorhynchus mykiss mg/L LC50	-	0.024: 48 h Daphnia magna mg/L EC50
Sodium borate; $Na_2B_4O_7$	158: 96 h Desmodesmus subspicatus mg/L	340: 96 h Limanda limanda mg/L LC50	-	1085 - 1402: 48 h Daphnia magna mg/L LC50

Persistence and degradability

Persistence and Degradability: No information available.

Bioaccumulative potential

Bioaccumulation: No information available.

Mobility

Mobility in soil No information available.

Mobility No information available.

Chemical Name	LOGPOW
Ammonium Nitrate; NH_4NO_3	-3.1

Other adverse effects

Mobility: 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

ADR/RID:

UN Number	2071
Proper shipping name	AMMONIUM NITRATE BASED FERTILIZER
Hazard Class	9
Packing Group	III
Hazchem code	1Z

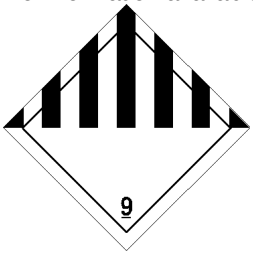
IATA

UN-No:	2071
Proper shipping name:	AMMONIUM NITRATE BASED FERTILIZER
Hazard Class:	9
Packing group:	III
Special Provisions	A89, A90

IMO / IMDG

Proper shipping name:	AMMONIUM NITRATE BASED FERTILIZER
Hazard Class:	9
Packing group:	III
EmS:	F-H / S-Q
Special Provisions	186, 193
Marine Pollutant:	This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO
Description:	Copper sulphate anh, CuSO4. 7758-98-7 (0.1-1%)

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No information available



Section 15: REGULATORY INFORMATION

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

National regulations

Australia
See section 8 for national exposure control parameters

International Inventories:

TSCA	This product does not comply with USINV
DSL/NDSL	DSL/NDSL
EINECS/ELINCS	EINECS/ELINCS
ENCS	This product does not comply with encs:

CHINA	This product does not comply with china:
KOREA	KOREA
PICCS	PICCS
Australian Inventory of Chemical Substances	This product does not comply with AICS

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

International Regulations

Ozone-depleting substances (ODS) Not applied

Persistent Organic Pollutants Not applied

The Rotterdam Convention Not applied

Section 16: ANY OTHER RELEVANT INFORMATION

Issue Date: 01-May-2014

Revision Date: 20-Jul-2017

Revision Note:
Not applied.

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

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
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End of Safety Data Sheet