Safety Data Sheet

Issue Date 19-May-2014 **Revision Date** 10-Oct-2019 **Version:** 6.02

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

1.1. Product identifier

Product Name	**Osmocote Pro Hi K 8-9M; 11-10-19+2MgO+TE**
Product Code:	**87470225EA**
Synonyms:	**Osmocote Pro 11-4.4-15.8+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)

Eye Irritation	Category 1 - (H318)
Chronic aquatic toxicity	Category 3 - (H412)

2.2. Label elements



Signal Word: Danger

Hazard Statements:

H318 - Causes serious eye damage
H412 - Harmful to aquatic life with long lasting effects

Contains Ammonium nitrate; NH_4NO_3, Calcium phosphate monobasic; $Ca(H_2PO_4)_2$

Precautionary Statements:

P280 - Wear eye protection/ face protection
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor/physician
P501 - Dispose of container in accordance with local regulation

Other hazards (UN-GHS)

Harmful 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
Potassium sulphate; K_2SO_4	231-915-5	7778-80-5	25 - 40%	Not classified	01-2119489411-34
Ammonium nitrate; NH_4NO_3	229-347-8	6484-52-2	10 - 25%	Eye Irrit. 2 (H319) Ox. Sol. 3 (H272)	01-2119490981-27
Coating	No EC nr.	PROPRIETARY	5 - 10%	Not classified	no data available
Di ammonium phosphate; $(NH_4)_2HPO_4$	231-987-8	7783-28-0	5 - 10%	Not classified	01-2119490974-22
Calcium phosphate monobasic; $Ca(H_2PO_4)_2$	231-837-1	7758-23-8	1 - 5%	Eye Dam. 1 (H318)	01-2119490065-39
Urea	200-315-5	57-13-6	1 - 5%	Not classified	01-2119463277-33
Magnesium oxide; MgO	215-171-9	1309-48-4	0.1 - 1%	Not classified	Exempt
Calcium sulphate dihydrate; $CaSO_4+2H_2O$	231-900-3	10101-41-4	0.1 - 1%	Not classified	01-2119444918-26
Iron sulphate; $FeSO_4+1H_2O$	231-753-5	7720-78-7	0.1 - 1%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H302)	01-2119513203-57
Iron-EDTA-13; Fe-EDTA	239-802-2	15708-41-5	0.1 - 1%	Not classified	01-2119496228-27
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
Wax	601-216-3	112945-52-5	0.1 - 1%	Not classified	01-2119488076-30
Manganese sulphate; $MnSO_4+1H_2O$	232-08-99	7785-87-7	< 0.1%	STOT RE 2 (H373) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)	01-2119456624-35
Sodium borate; $Na_2B_4O_7$	215-540-4	1330-43-4	< 0.1%	Eye Irrit. 2 (H319) Repr. 1B (H360FD)	01-2119490790-32
Calcium fluoride; CaF_2	232-188-7	7789-75-5	< 0.1%	Not classified	Exempt
Zinc sulphate mono hydrate; $ZnSO_4+1H_2O$	231-793-3	7446-19-7	< 0.1%	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	01-2119474684-27
Sodium molybdate; Na_2MoO_4	231-551-7	7631-95-0	< 0.1%	Not classified	01-2119489495-21

Component	SVHC candidates
Sodium borate; $Na_2B_4O_7$ 1330-43-4 (< 0.1%)	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 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.

Skin Contact: If a person feels unwell or symptoms of skin irritation appear, consult a physician. Rinse with plenty of water.

Eye Contact: Rinse eyes with water as a precaution. If eye irritation persists, consult a specialist.

Ingestion: If conscious, drink plenty of water. Do NOT induce vomiting. Rinse mouth. Consult a physician if necessary.

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: Coordinate fire extinguishing measures to fire in surrounding area.

Unsuitable Extinguishing Media: High volume water jet.

5.2. Special hazards arising from the substance or mixture
Thermal decomposition can lead to release of irritating and toxic gases and vapors.

5.3. Advice for firefighters
Use extinguishing agent suitable for type of surrounding fire. In the event of fire and/or explosion do not breathe fumes. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Personal Precautions: Avoid dust formation. Sweep-up to prevent slipping hazard.
For Emergency Responders: Use personal protection recommended in Section 8.

6.2. Environmental precautions
Prevent product from entering drains. Do not contaminate surface water.

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: Shovel or sweep up.

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 away from heat and sources of ignition. Keep away from food, drink and animal feeding stuffs. For quality reasons: Keep out of reach of direct sunlight, store under dry conditions, partly used packaging should be closed well. Keep at temperatures between 0 °C and 40 °C.
Packaging Materials: Store in original container. Store in a closed container.
LGK (Germany) 13

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

Potassium sulphate; K_2SO_4	
Bulgaria - OEL- TWAs	10.0 mg/m³ TWA
Latvia - OEL - TWAs	10 mg/m³ TWA
Ammonium nitrate; NH_4NO_3	
Australia	N.A.
Czech Republic OEL	10.0 mg/m³ TWA
Di ammonium phosphate; $(NH_4)_2HPO_4$	
Latvia - OEL - TWAs	6 mg/m³ TWA (listed under Ammophos)
Calcium phosphate monobasic; $Ca(H_2PO_4)_2$	
Latvia - OEL - TWAs	10 mg/m³ TWA
Urea	
Bulgaria - OEL- TWAs	10.0 mg/m³ TWA
Latvia - OEL - TWAs	10 mg/m³ TWA
Magnesium oxide; MgO	
Austria	STEL 10 mg/m³ TWA: 5 mg/m³
Australia	10 mg/m³ TWA fume
Belgium - 8 Hr TWA	10 mg/m³
Bulgaria - OEL- TWAs	10.0 mg/m³ TWA
Czech Republic OEL	5 mg/m³ TWA
Denmark	TWA: 6 mg/m³
FR - OEL - 8h VMEs	TWA: 10 mg/m³
Hungary - OEL - TWAs	6 mg/m³ TWA
Iceland - OEL - 8 Hour	6 mg/m³ TWA Mg
Ireland	TWA: 4 mg/m³ STEL: 10 mg/m³
Korea - ISHA - OEL - TWAs	10 mg/m³ TWA (Serial No. 277)
Malaysia	10 mg/m³ TWA (fume)
Norway	TWA: 10 mg/m³ STEL: 20 mg/m³
Poland	TWA: 10 mg/m³
Portugal	TWA: 10 mg/m³
Romania - OEL - TWAs	5 mg/m³ TWA (fume)
Spain - Valores Limite Ambientales - VLE	TWA: 10 mg/m³
Singapore - OEL:PELs	10 mg/m³ PEL
Switzerland	TWA: 3 mg/m³
UK EH40 WEL (8h)	10 mg/m³
Calcium sulphate dihydrate; $CaSO_4+2H_2O$	
Belgium - 8 Hr TWA	10 mg/m³ TWA
Portugal	TWA: 10 mg/m³
Spain - Valores Limite Ambientales - VLE	TWA: 10 mg/m³
Switzerland	TWA: 3 mg/m³
UK EH40 WEL (8h)	10 mg/m³ TWA (Inhalable) 4 mg/m³ TWA (Respirable)
Iron sulphate; $FeSO_4+1H_2O$	
Belgium - 8 Hr TWA	1 mg/m³
Denmark	TWA: 1 mg/m³
Finland	TWA: 1 mg/m³
Ireland	TWA: 1 mg/m³ STEL: 2 mg/m³
Norway	TWA: 1 mg/m³ STEL: 2 mg/m³
Portugal	TWA: 1 mg/m³
Spain - Valores Limite Ambientales - VLE	TWA: 1 mg/m³
Switzerland	TWA: 1 mg/m³
UK EH40 WEL (8h)	LTEL (8 hr TWA) 1 mg/m³ STEL (15 min) 2mg/m³
Iron-EDTA-13; Fe-EDTA	
Denmark	TWA: 1 mg/m³
Finland	TWA: 1 mg/m³

Portugal	TWA: 1 mg/m³
Spain - Valores Limite Ambientales - VLE	TWA: 1 mg/m³
Switzerland	TWA: 1 mg/m³
UK EH40 WEL (8h)	1 mg/m³ TWA
Copper sulphate anhydrous; $CuSO_4$	
Austria	STEL 4 mg/m³ TWA: 1 mg/m³
Australia	N.A.
Finland	TWA: 0.02 mg/m³
Poland	TWA: 0.2 mg/m³
Russia TWA	0.5 mg/m³ TWA 1258
Switzerland	STEL: 0.2 mg/m³ TWA: 0.1 mg/m³
Wax	
Austria	TWA: 4 mg/m³
Manganese sulphate; $MnSO_4+1H_2O$	
Austria	STEL 2 mg/m³ TWA: 0.5 mg/m³
Australia	0.2 mg/m³
Belgium - 8 Hr TWA	0.2 mg/m³
Denmark	TWA: 0.2 mg/m³
Finland	TWA: 0.02 mg/m³ TWA: 0.2 mg/m³
Ireland	TWA: 0.2 mg/m³ STEL: 0.6 mg/m³
Japan	0.2 mg/m³ OEL Mn
NL MAC - TWA:	STEL: 0.05 mg/m³ TWA: 0.2 mg/m³
Norway	TWA: 0.1 mg/m³ STEL: 0.1 ppm
Poland	TWA: 0.05 mg/m³
Portugal	TWA: 0.2 mg/m³
Spain - Valores Limite Ambientales - VLE	TWA: 0.2 mg/m³ TWA: 0.05 mg/m³
Switzerland	TWA: 0.5 mg/m³
UK EH40 WEL (8h)	5 mg/m³
Sodium borate; $Na_2B_4O_7$	
Australia	1 mg/m³ TWA
Belgium - 8 Hr TWA	2 mg/m³ TWA borate
Denmark	TWA: 1 mg/m³
FR - OEL - 8h VMEs	TWA: 1 mg/m³
Iceland - OEL - 8 Hour	1 mg/m³ TWA
Ireland	TWA: 1 mg/m³ STEL: 3 mg/m³
Korea - ISHA - OEL - TWAs	1 mg/m³ TWA (anhydrous, Serial No. 244)
Malaysia	1 mg/m³ TWA
Norway	TWA: 1 mg/m³ STEL: 2 mg/m³
Portugal	STEL: 6 mg/m³ TWA: 2 mg/m³
Spain - Valores Limite Ambientales - VLE	STEL: 6 mg/m³ TWA: 2 mg/m³
Singapore - OEL:PELs	1 mg/m³ PEL
Switzerland	STEL: 0.8 mg/m³
UK EH40 WEL (8h)	1 mg/m³ TWA
Calcium fluoride; CaF_2	
Denmark	TWA: 2.5 mg/m³
Ireland	TWA: 2.5 mg/m³ STEL: 7.5 mg/m³
Latvia - OEL - TWAs	0.5 mg/m³ TWA (as F, listed under Hydrofluoric acid salts)
Poland	TWA: 2 mg/m³
Portugal	TWA: 2.5 mg/m³
Romania - OEL - TWAs	1 mg/m³ TWA
Russia TWA	0.5 mg/m³ TWA 1104
Sodium molybdate; Na_2MoO_4	
Austria	STEL 10 mg/m³ TWA: 5 mg/m³
Czech Republic OEL	5 mg/m³ TWA

Denmark	TWA: 5 mg/m³
Finland	TWA: 0.5 mg/m³
FR - OEL - 8h VMEs	TWA: 5 mg/m³ STEL: 10 mg/m³
Ireland	TWA: 10 mg/m³ STEL: 30 mg/m³
Norway	TWA: 5 mg/m³ STEL: 10 mg/m³
Poland	STEL: 10 mg/m³ TWA: 4 mg/m³
Portugal	TWA: 0.5 mg/m³
Spain - Valores Limite Ambientales - VLE	TWA: 0.5 mg/m³
Switzerland	TWA: 5 mg/m³

Derived No Effect Level (DNEL)

Component	Oral	Dermal	Inhalation
Potassium sulphate; K_2SO_4 7778-80-5 (25 - 40%)		21.3 mg/kg bw/day	37.6 mg/m³
Ammonium nitrate; NH_4NO_3 6484-52-2 (10 - 25%)	36 mg/m³	5.12 mg/kg bw/day	8.9 mg/m³
Urea 57-13-6 (1 - 5%)		580 mg/kg bw/day	292 mg/m³
Manganese sulphate; $MnSO_4+1H_2O$ 7785-87-7 (< 0.1%)	37.6 mg/m³	0.004 mg/kg bw/day	0.2 mg/m³
Zinc sulphate mono hydrate; $ZnSO_4+1H_2O$ 7446-19-7 (< 0.1%)		8.3 mg/kg bw/day	1 mg/m³

Predicted No Effect Concentration (PNEC)

No data available

Component	Fresh Water	Freshwater sediment	Sea Water	Sea sediment	Soil	Impact on Sewage Treatment
Potassium sulphate; K_2SO_4 7778-80-5 (25 - 40%)	0.68 mg/l		0.068 mg/l			10 mg/l
Ammonium nitrate; NH_4NO_3 6484-52-2 (10 - 25%)						18 mg/l
Urea 57-13-6 (1 - 5%)	0.47 mg/l		0.047 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; $MnSO_4+1H_2O$ 7785-87-7 (< 0.1%)	0.013 mg/l	0.011 mg/kg	0 mg/l	0.001 mg/kg	25.1 mg/kg	25.1 mg/kg
Zinc sulphate mono hydrate; $ZnSO_4+1H_2O$ 7446-19-7 (< 0.1%)	20.6 µg/l		6.1 µg/l	56.5 mg/kg	35.6 mg/kg	100 µg/l

8.2. Exposure controls

Personal protective equipment

Eye/Face Protection Wear eye/face protection

Hand protection Gloves. 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: Follow good housekeeping practices. 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:	Greenish, blue.
Odor:	None
Bulk density:	900 - 1100 kg/m^3
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
Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible 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.

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: 0% of the mixture consists of ingredient(s) of unknown toxicity.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium sulphate; K_2SO_4	= 6600 mg/kg (Rat)		
Ammonium nitrate; NH_4NO_3	= 2217 mg/kg (Rat)	> 5000 mg/kg	> 88.8 mg/L (Rat) 4 h
Di ammonium phosphate; $(NH_4)_2HPO_4$	> 2000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	
Calcium phosphate monobasic; $Ca(H_2PO_4)_2$	= 3986 mg/kg (Rat)	> 2 g/kg (Rabbit)	
Urea	= 8471 mg/kg (Rat)		
Magnesium oxide; MgO	= 3870 mg/kg (Rat) = 3990 mg/kg (Rat)		
Iron sulphate; $FeSO_4+1H_2O$	= 500 mg/kg (Rat)	= 155 mg/kg (Rat)	
Iron-EDTA-13; Fe-EDTA	= 5 g/kg (Rat) > 5000 mg/kg (Rat)	> 5000 mg/kg (Rat)	> 2.05 g/m³ (Rat) 4 h
Copper sulphate anhydrous; $CuSO_4$	= 300 mg/kg (Rat)	= 1000 mg/kg (Rabbit)	
Wax	= 3160 mg/kg (Rat)		
Manganese sulphate; $MnSO_4+1H_2O$	= 2125 mg/kg (Rat)		> 4.98 mg/L (Rat) 4h
Sodium borate; $Na_2B_4O_7$	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2 mg/m³ (Rat) 4 h
Calcium fluoride; CaF_2	= 4250 mg/kg (Rat)		
Sodium molybdate; Na_2MoO_4	= 4233 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 2080 mg/m³ (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 Should not be released into the environment

Unknown Aquatic Toxicity 8% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
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	-	890: 48 h Daphnia magna mg/L EC50

		macrochirus mg/L LC50 static 510 - 880: 96 h Pimephales promelas mg/L LC50 static		
Ammonium nitrate; NH_4NO_3	-	65 - 85: 48 h Cyprinus carpio mg/L LC50 semi-static	-	-
Di ammonium phosphate; $(NH_4)_2HPO_4$	-	26.5: 96 h Oncorhynchus mykiss mg/L LC50 24.8 - 29.4: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 33: 96 h Pimephales promelas mg/L LC50 static 3.3: 96 h Pimephales promelas mg/L LC50	-	-
Urea	> 10000: 192 h Scenedesmus quadricauda mg/L EC50	16200 - 18300: 96 h Poecilia reticulata mg/L LC50	-	3910: 48 h Daphnia magna mg/L EC50 Static 10000: 24 h Daphnia magna Straus mg/L EC50
Iron sulphate; $FeSO_4+1H_2O$	-	925: 96 h Poecilia reticulata mg/L LC50 static 0.56: 96 h Cyprinus carpio mg/L LC50 semi-static	-	152: 48 h Daphnia magna mg/L EC50 6.15 - 9.26: 48 h Daphnia magna mg/L EC50 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; $Na_2B_4O_7$	158: 96 h Desmodesmus subspicatus mg/L	340: 96 h Limanda limanda mg/L LC50	-	1085 - 1402: 48 h Daphnia magna mg/L LC50

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_4NO_3	-3.1
Urea	-1.59

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: Not regulated

14.2

Proper shipping name: Not regulated

14.3

Hazard Class: Not regulated

14.4

Packing group: Not regulated

14.5

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: No information available

14.6

Special Provisions None

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: 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

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_4NO_3 6484-52-2 (10 - 25%)	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	350 tonne

	concentration of Ammonium nitrate is >80% by weight)	

Denmark

Denmark — No data available

France

ICPE — Not regulated

Germany

LGK (Germany) — 13
Water Endangering Class (WGK): — 1 (Everris classification)
Gefahrstoffverordnung (Germany) TRGS 511 — Not applied

Component	German WGK Section
Potassium sulphate; K_2SO_4 7778-80-5 (25 - 40%)	1
Ammonium nitrate; NH_4NO_3 6484-52-2 (10 - 25%)	1
Coating PROPRIETARY (5 - 10%)	3
Di ammonium phosphate; $(NH_4)_2HPO_4$ 7783-28-0 (5 - 10%)	1
Calcium phosphate monobasic; $Ca(H_2PO_4)_2$ 7758-23-8 (1 - 5%)	class 1
Urea 57-13-6 (1 - 5%)	1
Magnesium oxide; MgO 1309-48-4 (0.1 - 1%)	1
Calcium sulphate dihydrate; $CaSO_4+2H_2O$ 10101-41-4 (0.1 - 1%)	1
Iron sulphate; $FeSO_4+1H_2O$ 7720-78-7 (0.1 - 1%)	1
Iron-EDTA-13; Fe-EDTA 15708-41-5 (0.1 - 1%)	2
Copper sulphate anhydrous; $CuSO_4$ 7758-98-7 (0.1 - 1%)	2
Wax 112945-52-5 (0.1 - 1%)	3
Manganese sulphate; $MnSO_4+1H_2O$ 7785-87-7 (< 0.1%)	2
Sodium borate; $Na_2B_4O_7$ 1330-43-4 (< 0.1%)	1
Calcium fluoride; CaF_2 7789-75-5 (< 0.1%)	1
Zinc sulphate mono hydrate; $ZnSO_4+1H_2O$ 7446-19-7 (< 0.1%)	3
Sodium molybdate; Na_2MoO_4 7631-95-0 (< 0.1%)	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_4NO_3 6484-52-2 (10 - 25%)	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; $Na_2B_4O_7$ 1330-43-4 (< 0.1%)		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; $Na_2B_4O_7$ 1330-43-4 (< 0.1%)	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 XVII	Substance subject to authorization per REACH Annex XIV
Ammonium nitrate; NH_4NO_3	Use restricted. See item 58.	
Sodium borate; $Na_2B_4O_7$	Use restricted. See item 30.	

Chemical Name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Ammonium nitrate; NH_4NO_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
- H373 - May cause damage to the kidneys/ liver/ eyes/ brain/ respiratory system/ central nervous system through prolonged or repeated exposure in contact with skin
- 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).

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