# **Safety Data Sheet**

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Last Revision Date 08-Mar-2022

Version: 1

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier Product Name Product Code Unique Formula Identifier (UFI) Pure substance/mixture

Osmocote Bloom 13-7-18+1.5MgO+TE; 2-3M 8739-225HA C96S-Q096-A00G-EU2S 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 (SU21)

Reason why uses advised against Use advised against in Chemical Safety Assessment per REACH Annex I point 7 2.3

#### 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 Non-Emergency Telephone Number +31 (0) 418655700

#### 1.4. Emergency telephone number

IN CASE OF AN EMERGENCY CALL: +44 1235 239 670 (24/7)

Europe	112			
Austria	+43 1 406 43 43			
Belgium	070 245 245			
Denmark	+45 8212 1212			
Finland	0800 147 111			
France	+ 33 (0)1 45 42 59			
Ireland	01 809 2566			
Netherlands	+31 88 75 585 61			
Norway	+45 735 80500			
Poland	+48 42 2538 400			
Portugal	+351 800 250 250			
Spain	+34 91 562 04 20			
Sweden	112			
Switzerland	Tox Info Switzerland 145 (24h)			
United Kingdom	111			

#### 2.1. Classification of the substance or mixture

Regulation (EC) NO 1272/2008	
Serious eye damage/eye irritation	Category 1 - (H318)
Chronic aquatic toxicity	Category 3 - (H412)

#### 2.2. Label elements



Contains Potassium sulphate; K<sub>2</sub>SO<sub>4</sub>, Manganese sulphate; MnSO<sub>4</sub> Signal word Danger

#### Hazard statements

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

#### Precautionary Statements - EU (§28, 1272/2008)

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

#### 2.3. Other hazards

No information available.

# **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Not applicable

#### 3.2 Mixtures

Chemical name	EC No	Weight-%		Specific	REACH	M-Factor	M-Factor
			according to Regulation (EC) No. 1272/2008	concentration limit (SCL)	registration number		(long-term )
			[CLP]				
Ammonium nitrate; NH4NO3 (6484-52-2)	229-347-8	25 - 40%	Eye Irrit. 2 (H319) Ox. Sol. 3 (H272)	Eye Irrit. 2 :: C>=80%	01-2119490981-27	-	-
Potassium sulphate; K <sub>2</sub> SO <sub>4</sub> (7778-80-5)	231-915-5	10 - 25%	Eye Dam. 1 (H318)	-	01-2119489441-34	-	-
Iron sulphate; FeSO4+7H2O (7782-63-0)	231-753-5	1 - 5%	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	Skin Irrit. 2 :: C>=25%	01-2119513203-57	-	-
Copper sulphate anhydrous; CuSO4 (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	10	10
Manganese sulphate; MnSO4 (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 tetraborate pentahydrate (12179-04-3)	601-808-1	0.1 - 1%	Eye Dam. 2 (H319) Carc.1B (H360)	-	01-2119490790-32	-	-
Zinc sulfate; ZnSO4 (7733-02-0)	231-793-3	< 0.1%	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 1	-	01-2119474684-27	1	1

	(H410)		

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

Acute Toxicity Estimate If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L
Ammonium nitrate; NH4NO3	2217	5000	88.8
Potassium sulphate; K <sub>2</sub> SO <sub>4</sub>	6600	No data available	No data available
Copper sulphate anhydrous; CuSO4	300	1000	No data available
Manganese sulphate; MnSO4	782	No data available	No data available
Sodium tetraborate pentahydrate	2403	No data available	No data available
Zinc sulfate; ZnSO4	1710	No data available	No data available

Chemical name	CAS No	SVHC candidates	
Sodium tetraborate pentahydrate	12179-04-3	Х	

# SECTION 4: First aid measures

#### 4.1. Description of first aid measures

General advice	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). 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. If not breathing, give artificial respiration. If symptoms persist, call a physician. Dusty conditions are unlikely if product is used as intended. However, if prolonged inhalation of dust occurs, remove casualty to fresh air.				
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. In the case of skin irritation or allergic reactions see a physician.				
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 e	effects, both acute and delayed				
Symptoms	None known.				
4.3. Indication of any immediate medical attention and special treatment needed					
Note to physicians	Treat symptomatically.				
SECTION 5: Firefighting me	easures				

# 5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

#### 5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

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).

5.3. Advice for firefighters

**Special protective equipment and** 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	Ensure adequate ventilation. Wear protective gloves/clothing and eye/face protection.			
Other information	Refer to protective measures listed in Sections 7 and 8.			
For emergency responders	Use personal protection recommended in Section 8. Prevent entry into waterways, sewers, basements or confined areas.			
6.2. Environmental precautions				
Environmental precautions	See Section 12 for additional Ecological Information. Do not flush into surface water or sanitary sewer system.			
6.3. Methods and material for conta	inment and cleaning up			
Methods for containment	Prevent further leakage or spillage if safe to do so.			
Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal. Use up product completely. Packaging material is industrial waste.			
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.			
6.4. Reference to other sections				
Reference to other sections	See section 8 for more information. See section 13 for more information.			

# **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Advice on safe handling	Ensure adequate ventilation. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with eyes. Avoid generation of dust. In case of insufficient ventilation, wear suitable respiratory equipment.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	KEEP OUT OF REACH OF CHILDREN AND PETS. 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 frost.
Packaging materials	Keep in original container, tightly closed in a safe place.
7.3. Specific end use(s)	
Specific use(s)	Fertilizer.
Exposure scenario	Mixture. Not required.
Risk Management Methods (RMM)	The information required is contained in this Safety Data Sheet.
Other Information	

# SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

# **Exposure Limits**

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Potassium sulphate; K <sub>2</sub> SO <sub>4</sub>	-	-	-	TWA: 10.0 mg/m <sup>3</sup>	-
Iron sulphate; FeSO₄+7H₂O	-	-	TWA: 1 mg/m <sup>3</sup>	TWA: 1.0 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 2 mg/m <sup>3</sup>
Copper sulphate anhydrous; CuSO4	-	STEL 4 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	-	TWA: 1.0 mg/m <sup>3</sup>	-
Manganese sulphate; MnSO <sub>4</sub>	-	TWA: 0.2 mg/m <sup>3</sup> STEL 1.6 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup>
Sodium tetraborate pentahydrate	-	-	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>	TWA: 5.0 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Ammonium nitrate; NH₄NO₃	-	TWA: 10.0 mg/m <sup>3</sup>	-	-	-
Iron sulphate; FeSO₄+7H₂O	-	-	TWA: 1 mg/m <sup>3</sup>	-	TWA: 1 mg/m <sup>3</sup>
Copper sulphate anhydrous; CuSO4	-	-	-	TWA: 1 mg/m <sup>3</sup> TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.02 mg/m <sup>3</sup>
Manganese sulphate; MnSO <sub>4</sub>	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> Ceiling: 2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.02 mg/m <sup>3</sup> TWA: 0.2 mg/m <sup>3</sup>
Sodium tetraborate pentahydrate	-	-	TWA: 1 mg/m <sup>3</sup>	-	-
Chemical name	France	Germany	Germany MAK	Greece	Hungary
Iron sulphate; FeSO₄+7H₂O	-	-	-	TWA: 1 mg/m <sup>3</sup> STEL: 2 mg/m <sup>3</sup>	-
Copper sulphate anhydrous; CuSO4	-	-	TWA: 0.01 mg/m <sup>3</sup> Peak: 0.02 mg/m <sup>3</sup>	-	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.2 mg/m <sup>3</sup>
Manganese sulphate; MnSO₄	-	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.02 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.02 mg/m <sup>3</sup> Peak: 1.6 mg/m <sup>3</sup> Peak: 0.16 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup>
Sodium tetraborate pentahydrate	TWA: 1 mg/m <sup>3</sup>	-	TWA: 5 mg/m <sup>3</sup> Peak: 5 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	-
Zinc sulfate; ZnSO4	-	-	TWA: 0.1 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup> Peak: 0.4 mg/m <sup>3</sup> Peak: 4 mg/m <sup>3</sup>	-	-
Chemical name	Italy	Latvia	Lithuania	Luxembourg	Netherlands

Potassium sulphate; K <sub>2</sub> SO <sub>4</sub>	-	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	-	-
Copper sulphate anhydrous; CuSO4	-	TWA: 0.5 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> TWA: 0.2 mg/m <sup>3</sup>	-	TWA: 0.1 mg/m <sup>3</sup>
Manganese sulphate; MnSO <sub>4</sub>	TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup>	-	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup>
Chemical name	Norway	Poland	Portugal	Romania	Slovakia
Iron sulphate; FeSO4+7H2O	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>	-	TWA: 1 mg/m <sup>3</sup>	-	-
Copper sulphate anhydrous; CuSO4	-	TWA: 0.2 mg/m <sup>3</sup>	-	-	TWA: 1 mg/m <sup>3</sup> TWA: 0.2 ppm
Manganese sulphate; MnSO <sub>4</sub>	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.1 ppm	TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>
Sodium tetraborate pentahydrate	-	-	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>	-	-
Zinc sulfate; ZnSO4	-	-	-	-	TWA: 0.1 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup>
Chemical name	Slovenia	Spain	Sweden	Switzerland	United Kingdom
Iron sulphate; FeSO4+7H2O	-	TWA: 1 mg/m <sup>3</sup>	-	TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>
Copper sulphate anhydrous; CuSO4	-	TWA: 0.1 mg/m <sup>3</sup>	NGV: 0.01 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.2 mg/m <sup>3</sup>	-
Manganese sulphate; MnSO <sub>4</sub>	TWA: 0.05 mg/m <sup>3</sup> STEL: 0.4 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup>	NGV: 0.2 mg/m <sup>3</sup> NGV: 0.05 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup>
Sodium tetraborate pentahydrate	-	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>	-	-	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>

### **Biological occupational exposure limits**

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
Manganese sulphate; MnSO₄	-	20 μg/L (blood - whole blood not provided) (-)	-	-	-
Chemical name	Denmark	Finland	France	Germany	Germany
Manganese sulphate; MnSO₄	-	-	-	15 μg/L - BAR (end of exposure or end of shift) blood 15 μg/L - BAR (for long-term exposures: at the end of the shift after several shifts) blood	-

Derived No Effect Level (DNEL)<br/>Predicted No Effect ConcentrationNo information available.No information available. (PNEC)

#### 8.2. Exposure controls

Personal protective equipment	Wear normal, light working clothing	
Eye/face protection	Wear safety glasses with side shields (or goggles).	
Hand protection	Nitrile rubber (0.26 mm). Break through time. > 8 h.	
Skin and body protection	Lightweight protective clothing.	
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are	

exceeded or irritation is experienced, ventilation and evacuation may be required. **General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice. Local authorities should be advised if significant spillages cannot be contained. Prevent **Environmental exposure controls** product from entering drains.

# SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	Solid	
Appearance:	Granules	
Color:	brown, green	
Odor:	Fertilizer.	
Property	Values	Remarks • Method
Melting Point/Freezing Point:	No data available	None known
Boiling Point/Range:	No data available	None known
Flammability (solid, gas):	No data available	None known
Flammability Limits in Air:		None known
Upper Flammability Limit:	No data available	
Lower Flammability Limit:	No data available	
Flash Point:	No data available	None known
Autoignition Temperature:	No data available	None known
Decomposition Temperature:		None known
рН	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic Viscosity:	No data available	None known
Dynamic Viscosity:	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition Coefficient:	No data available	None known
Vapor Pressure:	No data available	None known
Relative density	No data available	None known
Bulk density	+/- 1092 kg/m <sup>3</sup>	
Density:	No data available	
Vapour density	No data available	None known
Particle characteristics		
Particle Size	No data available	
Particle Size Distribution	No data available	
9.2. Other information		

9.2. Other information

9.2.1. Information with regard to physical hazard classes Not applicable Explosive properties:

Doesn't present explosion hazard

9.2.2. Other safety characteristics No information available

# SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Reactivity

Not reactive.

## 10.2. Chemical stability

Stability

Stable under normal conditions.

## Specific methods:

Sensitivity to mechanical impact	Not sensitive.
Sensitivity to static discharge	Not sensitive.

#### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** None under normal processing.

#### 10.4. Conditions to avoid

**Conditions to avoid** Keep away from open flames, hot surfaces and sources of ignition.

#### 10.5. Incompatible materials

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

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 hazard classes as defined in Regulation (EC) No 1272/2008

#### Information on likely routes of exposure

#### **Product Information**

Inhalation	Specific test data for the substance or mixture is not available. Inhalation of dust in high concentration may cause irritation of respiratory system.	
Eye contact	Causes serious eye damage.	
Skin contact	May cause irritation.	
Ingestion	May cause gastrointestinal discomfort if consumed in large amounts.	
Symptoms related to the physical	chemical and toxicological characteristics	

Symptoms No information available.

#### Numerical measures of toxicity

Based on available data, the classification criteria are not met

#### Acute toxicity

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

#### **Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium nitrate; NH4NO3	= 2217 mg/kg (Rat)	> 5000 mg/kg	>88.8 mg/L (Rat)4 h
Potassium sulphate; K <sub>2</sub> SO <sub>4</sub>	= 6600 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
Iron sulphate; FeSO4+7H2O	= 1520 mg/kg	-	-
Copper sulphate anhydrous; CuSO4	= 300 mg/kg (Rat)	= 1000 mg/kg (Rabbit)	-

Manganese sulphate; MnSO <sub>4</sub>	= 2125 mg/kg (Rat)	-	> 4.98 mg/L (Rat) 4h
Sodium tetraborate pentahydrate	= 2403 mg/kg (Rat)	-	-
Zinc sulfate; ZnSO4	= 1710 mg/kg (Rat)	-	-

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

Skin corrosion/irritation	No information available.		
Serious eye damage/eye irritation	No information available.		
Respiratory or skin sensitization	Based on available data, the classification criteria are not met.		
Germ cell mutagenicity	Based on available data, the clas	sification criteria are not met.	
Carcinogenicity Reproductive toxicity	Based on available data, the clas Based on available data, the clas		
	Chemical name European Union		
Sodium tetraborat 12179-		Repr. 1B	
STOT - single exposure STOT - repeated exposure Aspiration hazard Endocrine disrupting properties	The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins. Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met Based on available data, the classification criteria are not met		

# **SECTION 12: Ecological information**

#### 12.1. Toxicity

Ecotoxicity

Based on available data, the classification criteria are not met.

#### Unknown aquatic toxicity

Contains 7 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
			microorganisms	
Potassium sulphate; K <sub>2</sub> SO <sub>4</sub>	EC50: =2900mg/L (72h,	LC50: 510 - 880mg/L	-	EC50: =890mg/L (48h,
	Desmodesmus	(96h, Pimephales		Daphnia magna)
	subspicatus)	promelas)		
		LC50: =3550mg/L (96h,		
		Lepomis macrochirus)		
		LC50: =653mg/L (96h,		
		Lepomis macrochirus)		
Copper sulphate anhydrous;	-	LC50: =0.1mg/L (96h,	-	0.024: 48 h Daphnia
CuSO <sub>4</sub>		Oncorhynchus mykiss)		magna mg/L EC50
Zinc sulfate; ZnSO <sub>4</sub>	EC50: =0.056mg/L	LC50: 0.03 - 0.05mg/L	-	EC50: 0.538 -
	(72h,	(96h, Oncorhynchus		0.908mg/L (48h,
	Pseudokirchneriella	mykiss)		Daphnia magna)
	subcapitata)	LC50: 0.168 - 0.25mg/L		EC50: =0.75mg/L (48h,
		(96h, Pimephales		Daphnia magna)
		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)	
,	l l

#### 12.2. Persistence and degradability

Persistence and Degradability: No information available.

12.3. Bioaccumulative potential

Bioaccumulation

There is no data for this product.

#### **Component Information**

Chemical name	Partition coefficient
Ammonium nitrate; NH4NO3	-3.1

#### 12.4. Mobility in soil

Mobility in soil no data available.

Mobility no data available.

#### 12.5. Results of PBT and vPvB assessment

#### PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Ammonium nitrate; NH4NO3	The substance is not PBT / vPvB PBT assessment does not apply Further
	information relevant for the PBT assessment is necessary
Potassium sulphate; K <sub>2</sub> SO <sub>4</sub>	The substance is not PBT / vPvB PBT assessment does not apply
Copper sulphate anhydrous; CuSO <sub>4</sub>	The substance is not PBT / vPvB PBT assessment does not apply
Manganese sulphate; MnSO <sub>4</sub>	The substance is not PBT / vPvB PBT assessment does not apply
Zinc sulfate; ZnSO <sub>4</sub>	The substance is not PBT / vPvB PBT assessment does not apply

#### 12.6. Endocrine disrupting properties

# 12.7. Other adverse effects

# SECTION 13: Disposal considerations

#### 13.1. 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.
Other Information	Use up product completely. Packaging material is industrial waste. If material is uncontaminated, collect and reuse as recommended for product.

# **SECTION 14: Transport information**

IMDG			
14.1			
UN-No:	2071		
14.2			
Proper shipping name:	AMMONIUM NITRATE BASED FERTILIZER		
14.3			
Transport hazard class(es)	9		
14.4			
Packing group:	III		
14.5			
Marine Pollutant:	Not regulated		
Chemical name	IMDG - Marine Pollutants		
Copper sulphate anhydrous; CuSO4	IMDG regulated marine pollutant (Listed in the index, listed under Copper sulphate, anhydrous, hydrates and solution)		
<u>14.6</u>			
EmS:	F-H / S-Q		
Special Provisions 14.7	186, 193		
Bulk transport according Annex II of MARPOL and IBC Cod	e No data available		
ADR			
<u>14.1</u>			
UN-No:	Not regulated		
44.0	-		
<u>14.2</u>			
Proper shipping name: 14.3	Not regulated		
Proper shipping name: <u>14.3</u> Transport hazard class(es)	Not regulated		
Proper shipping name: <u>14.3</u> Transport hazard class(es) <u>14.4</u> Packing group:	-		
Proper shipping name: <u>14.3</u> Transport hazard class(es) <u>14.4</u> Packing group: 14.5	Not regulated		
Proper shipping name: 14.3 Transport hazard class(es) 14.4 Packing group: 14.5 Environmental hazards	Not regulated		
Proper shipping name: <u>14.3</u> Transport hazard class(es) <u>14.4</u> Packing group: 14.5	Not regulated		
Proper shipping name: 14.3 Transport hazard class(es) 14.4 Packing group: 14.5 Environmental hazards 14.6	Not regulated Not regulated Not regulated		
Proper shipping name:   14.3   Transport hazard class(es)   14.4   Packing group:   14.5   Environmental hazards   14.6   Special Provisions	Not regulated Not regulated Not regulated None		
Proper shipping name:   14.3   Transport hazard class(es)   14.4   Packing group:   14.5   Environmental hazards   14.6   Special Provisions	Not regulated Not regulated Not regulated		
Proper shipping name:   14.3   Transport hazard class(es)   14.4   Packing group:   14.5   Environmental hazards   14.6   Special Provisions   IATA   14.1   UN number or ID number   14.2   Proper shipping name:	Not regulated Not regulated Not regulated None		
Proper shipping name:   14.3   Transport hazard class(es)   14.4   Packing group:   14.5   Environmental hazards   14.6   Special Provisions   IATA   14.1   UN number or ID number   14.2	Not regulated Not regulated Not regulated None 2071		

Packing group <u>14.5</u> Environmental hazards <u>14.6</u> Special Provisions



Not regulated

Ш

A89, A90

# **SECTION 15: Regulatory information**

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

National regulations

<b>Denmark</b> Sikkerhedsgruppe DK	В
France ICPE	Classified installation: article 4702

#### Germany

Gefahrstoffverordnung (Germany) TRGS 511 Water hazard class (WGK) B II non-hazardous to water (nwg)

Chemical name	German WGK Section
Ammonium nitrate; NH₄NO₃	1
Potassium sulphate; K <sub>2</sub> SO <sub>4</sub>	1
Iron sulphate; FeSO4+7H2O	3
Copper sulphate anhydrous; CuSO <sub>4</sub>	2
Manganese sulphate; MnSO4	2
Sodium tetraborate pentahydrate	Reg. no. 37, hazard class 1 - slightly hazardous to water
Zinc sulfate; ZnSO4	3

#### Netherlands

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
Manganese sulphate; MnSO4	-	-	Fertility Category 2
			Development Category 2
Sodium tetraborate pentahydrate	-	-	Fertility Category 1B
			Development Category 1B

#### European Union

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

#### Take note of Directive 94/33/EC on the protection of young people at work

Not to be used by professional users below 18 years of age, see the National Working Environment Authorities Executive Order on

young peoples dangerous work.

#### Authorizations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
	58.	-
Ammonium nitrate; NH 4NO3		
	30.	-
Sodium tetraborate pentahydrate		

#### REGULATION (EU) 2019/1148 on the marketing and use of explosives precursors

Chemical name	REGULATION (EU) 2019/1148 on the marketing and		
	use of explosives precursors		
Ammonium nitrate; NH₄NO <sub>3</sub>	Present (16% by weight of N in relation to AN or higher)		
Acquisition, introduction, possession or use of this product by the general public is restricted by Regulation (EU) 2019/1148. All			
suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.			

#### Persistent Organic Pollutants

Not applicable

#### Named dangerous substances per Seveso Directive (2012/18/EU)

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
	350	2500
Ammonium nitrate; NH 4NO3		

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

#### EU - Plant Protection Products (1107/2009/EC)

Chemical name	EU - Plant Protection Products (1107/2009/EC)
	Plant protection agent
Iron sulphate; FeSO 4+7H2O	

#### Biocidal Products Regulation (EU) No 528/2012 (BPR)

#### International Inventories:

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

#### 15.2. Chemical safety assessment

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

#### **SECTION 16: Other information**

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

#### Full text of H-Statements referred to under section 3

H272 - May intensify fire; oxidizer H302 - Harmful if swallowed H315 - Causes skin irritation H318 - Causes serious eye damage H319 - Causes serious eye irritation H332 - Harmful if inhaled H360 - May damage fertility or the unborn child H373 - May cause damage to organs through prolonged or repeated exposure H400 - Very toxic to aquatic life H410 - Very toxic to aquatic life with long lasting effects H411 - Toxic to aquatic life with long lasting effects

SVHC: Substances of Very High Concern for Authorization:

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals vPvB: Very Persistent and very Bioaccumulative (vPvB) Chemicals

#### Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

#### **Classification procedure**

Calculation method

• Expert judgment and weight of evidence determination

Classification procedure		
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used	
Acute oral toxicity	Calculation method	
Acute dermal toxicity	Calculation method	
Acute inhalation toxicity - gas	Calculation method	
Acute inhalation toxicity - vapor	Calculation method	
Acute inhalation toxicity - dust/mist	Calculation method	
Skin corrosion/irritation	Calculation method	
Serious eye damage/eye irritation	Calculation method	
Respiratory sensitization	Calculation method	
Skin sensitization	Calculation method	
Mutagenicity	Calculation method	
Carcinogenicity	Calculation method	
Reproductive toxicity	Calculation method	
STOT - single exposure	Calculation method	
STOT - repeated exposure	Calculation method	
Acute aquatic toxicity	Calculation method	
Chronic aquatic toxicity	Calculation method	
Aspiration hazard	Calculation method	
Ozone	Calculation method	

#### Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED)

# National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID) Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program Organization for Economic Co-operation and Development Screening Information Data Set World Health Organization

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End of Safety Data Sheet