# **Safety Data Sheet**

Issue Date 05-Mar-2015 Revision Date 10-Oct-2019 Version: 12

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

1.1. Product identifier

Product Name Osmocote Exact Standard 5-6M; 15-9-12+2MgO+TE

Product Code: 88410200EA
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

## 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
Ammonium nitrate; NH <sub>4</sub> NO <sub>3</sub>	229-347-8	6484-52-2	25 - 40%	Eye Irrit. 2 (H319) Ox. Sol. 3 (H272)	01-2119490981-27
Iron sulphate; FeSO <sub>4</sub> +1H <sub>2</sub> O	231-753-5	7720-78-7	1 - 5%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H302)	01-2119513203-57
Copper sulphate anhydrous; CuSO <sub>4</sub>	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 <sub>4</sub> +1H <sub>2</sub> 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

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Sodium borate; Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	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 <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	Present
1330-43-4 ( 0.1 - 1% )	

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

Water.

#### 5.1. Extinguishing media

Unsuitable Extinguishing Media:

Suitable 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 (NOx).

#### 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: Avoid dust formation. Sweep-up to prevent slipping hazard. Ensure adequate ventilation.

Use personal protection recommended in Section 8.

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

#### 6.2. Environmental precautions

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Prevent product from entering drains. Do not contaminate surface water. 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: Shovel or sweep up. If material is uncontaminated, collect and reuse as recommended for

product.

#### 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 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. Keep away from sources of ignition - No smoking. Keep away from flammable materials. Store in original container. Store in a closed container.

Packaging Materials: Store PGS-7 (The Netherlands) 2/B

LGK (Germany) 5.1C

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

Ammonium nitrate; NH4NO₃				
Australia	N.A.			
Czech Republic OEL	10.0 mg/m³ TWA			
Iron sulphate; FeSO <sub>4</sub> +1H <sub>2</sub> O				
Belgium - 8 Hr TWA	1 mg/m <sup>3</sup>			
Denmark	TWA: 1 mg/m <sup>3</sup>			
Finland	TWA: 1 mg/m <sup>3</sup>			
Ireland	TWA: 1 mg/m <sup>3</sup>			
	STEL: 2 mg/m³			
Norway	TWA: 1 mg/m <sup>3</sup>			
	STEL: 2 mg/m³			
Portugal	TWA: 1 mg/m <sup>3</sup>			
Spain - Valores Limite Ambientales - VLE	TWA: 1 mg/m <sup>3</sup>			
Switzerland	TWA: 1 mg/m <sup>3</sup>			
UK EH40 WEL (8h)	LTEL (8 hr TWA) 1 mg/m <sup>3</sup>			
	STEL (15 min) 2mg/m <sup>3</sup>			
Copper sulphate anhydrous; CuSO <sub>4</sub>				
Austria	STEL 4 mg/m <sup>3</sup>			
	TWA: 1 mg/m <sup>3</sup>			
Australia	N.A.			
Finland	TWA: 0.02 mg/m <sup>3</sup>			
Poland	TWA: 0.2 mg/m <sup>3</sup>			
Russia TWA	0.5 mg/m³ TWA 1258			
Switzerland	STEL: 0.2 mg/m <sup>3</sup>			
	TWA: 0.1 mg/m <sup>3</sup>			
Manganese sulphate; MnSO <sub>4</sub> +1H <sub>2</sub> O				
Austria	STEL 2 mg/m <sup>3</sup>			
	TWA: 0.5 mg/m <sup>3</sup>			
Australia	0.2 mg/m <sup>3</sup>			

Belgium - 8 Hr TWA	0.2 mg/m <sup>3</sup>
Denmark	TWA: 0.2 mg/m <sup>3</sup>
Finland	TWA: 0.02 mg/m³ TWA: 0.2 mg/m³
Ireland	TWA: 0.2 mg/m <sup>3</sup>
	STEL: 0.6 mg/m <sup>3</sup>
Japan	0.2 mg/m³ OEL Mn
NL MAC - TWA:	STEL: 0.05 mg/m <sup>3</sup>
	TWA: 0.2 mg/m <sup>3</sup>
Norway	TWA: 0.1 mg/m <sup>3</sup>
	STEL: 0.1 ppm
Poland	TWA: 0.05 mg/m <sup>3</sup>
Portugal	TWA: 0.2 mg/m <sup>3</sup>
Spain - Valores Limite Ambientales - VLE	TWA: 0.2 mg/m <sup>3</sup>
	TWA: 0.05 mg/m <sup>3</sup>
Switzerland	TWA: 0.5 mg/m <sup>3</sup>
UK EH40 WEL (8h)	5 mg/m <sup>3</sup>
Sodium borate; Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	
Australia	1 mg/m³ TWA
Belgium - 8 Hr TWA	2 mg/m³ TWA borate
Denmark	TWA: 1 mg/m <sup>3</sup>
FR - OEL - 8h VMEs	TWA: 1 mg/m <sup>3</sup>
Iceland - OEL - 8 Hour	1 mg/m³ TWA
Ireland	TWA: 1 mg/m <sup>3</sup>
	STEL: 3 mg/m <sup>3</sup>
Korea - ISHA - OEL - TWAs	1 mg/m³ TWA (anhydrous, Serial No. 244)
Malaysia	1 mg/m³ TWA
Norway	TWA: 1 mg/m <sup>3</sup>
	STEL: 2 mg/m <sup>3</sup>
Portugal	STEL: 6 mg/m <sup>3</sup>
	TWA: 2 mg/m <sup>3</sup>
Spain - Valores Limite Ambientales - VLE	STEL: 6 mg/m <sup>3</sup>
	TWA: 2 mg/m <sup>3</sup>
Singapore - OEL:PELs	1 mg/m³ PEL
Switzerland	STEL: 0.8 mg/m <sup>3</sup>
UK EH40 WEL (8h)	1 mg/m³ TWA

# **Derived No Effect Level (DNEL)**

Component	Oral	Dermal	Inhalation
Ammonium nitrate; NH <sub>4</sub> NO <sub>3</sub> 6484-52-2 ( 25 - 40% )	36 mg/m <sup>3</sup>	5.12 mg/kg bw/day	8.9 mg/m <sup>3</sup>
Manganese sulphate; MnSO <sub>4</sub> +1H <sub>2</sub> O 7785-87-7 ( 0.1 - 1% )	37.6 mg/m³	0.004 mg/kg bw/day	0.2 mg/m <sup>3</sup>

## **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 <sub>4</sub> NO <sub>3</sub> 6484-52-2 ( 25 - 40% )						18 mg/l
Copper sulphate anhydrous; CuSO <sub>4</sub> 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 <sub>4</sub> +1H <sub>2</sub> 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** Gloves. Nitrile rubber (0.26 mm). Break through time. > 8 h.

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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:SolidAppearance:GranulesColor:brown.Odor:Not significantMelting Point/Freezing Point:no data available

Melting Point/Freezing Point:no data availableBoiling Point/Range:Solid. Not applicable.Flash Point:No information available.Evaporation Rate:Solid. Not applicable.Flammability (solid, gas):Not flammableVapor Pressure:Solid. Not applicable.

Vapour densitySolid. Not applicable.Relative densityNo data availableWater Solubility:No data availableSolubility(ies)No data availablePartition Coefficient:Solid. Not applicable.Autoignition Temperature:No data available

**Decomposition temperature:** 150 °C

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.

**Remarks:** Not reactive, Stable under recommended storage conditions.

### 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

Carbon oxides (CO and CO2). Nitrogen oxides (NOx). Nitrogen oxides (NOx). Ammonia. Oxides of phosphorus.

# **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:** 7% of the mixture consists of ingredient(s) of unknown toxicity.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium nitrate; NH₄NO₃	= 2217 mg/kg (Rat)	> 5000 mg/kg	> 88.8 mg/L (Rat) 4 h
Iron sulphate; FeSO <sub>4</sub> +1H <sub>2</sub> O	= 500 mg/kg (Rat)	= 155 mg/kg (Rat)	
Copper sulphate anhydrous; CuSO <sub>4</sub>	= 300 mg/kg (Rat)	= 1000 mg/kg (Rabbit)	
Manganese sulphate; MnSO <sub>4</sub> +1H <sub>2</sub> O	= 2125 mg/kg (Rat)		> 4.98 mg/L (Rat) 4h
Sodium borate; Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2 mg/m <sup>3</sup> (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 7% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Ammonium nitrate; NH <sub>4</sub> NO <sub>3</sub>	-	65 - 85: 48 h Cyprinus carpio mg/L LC50 semi-static	<u>-</u>	-
Iron sulphate; FeSO <sub>4</sub> +1H <sub>2</sub> O	-	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 <sub>4</sub>	-	0.1: 96 h Oncorhynchus mykiss mg/L LC50	-	0.024: 48 h Daphnia magna mg/L EC50
Sodium borate; Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	158: 96 h Desmodesmus	340: 96 h Limanda	-	1085 - 1402: 48 h

#### -- Osmocote Exact Standard 5-6M; 15-9-12+2MgO+TE

	subspicatus mg/L	limanda mg/L LC50	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 <sub>4</sub> NO <sub>3</sub>	-3.1

12.4. Mobility in soilNo data available.12.5. PBT and vPvB assessmentNo data available.12.6. Other adverse effectsNo 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. Empty containers can be landfilled, when in accordance with the

local regulations.

# **Section 14: TRANSPORT INFORMATION**

IMO / IMDG

<u>14.1</u> UN-No: 2071

14.2

Proper shipping name: AMMONIUM NITRATE BASED FERTILIZER

14.3

Hazard Class: 9

14.4

Packing group:

14.5

Chemical Name	IMDG - Marine Pollutants
	IMDG regulated marine pollutant (Listed in the index,
7758-98-7 ( 0.1 - 1% )	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

## -- Osmocote Exact Standard 5-6M; 15-9-12+2MgO+TE

2071

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Not regulated

AMMONIUM NITRATE BASED FERTILIZER

**Environmental Hazard** 

14.6

**Special Provisions** None

IATA

14.1 UN-No:

14.2

Proper shipping name:

14.3

**Hazard Class:** 

14.4

Packing group:

14.5

**Environmental Hazard** Not regulated

<u>14.6</u>

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; NH₄NO₃	2500 tonne (technical grade; (a) this applies	350 tonne
6484-52-2 ( 25 - 40% )	to Ammonium nitrate in which the Nitrogen	
, , ,	content as a result of Ammonium nitrate is (	)
	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) aqueou	s
	Ammonium nitrate solutions in which the	
	concentration of Ammonium nitrate is >80%	
	by weight)	

Denmark

Denmark В

France

Classified installation: article 4702 ICPE

**Germany** 

LGK (Germany) 5.1C

Water Endangering Class (WGK): 1 (Everris classification)

Gefahrstoffverordnung (Germany) TRGS 511 ΒII

Component	German WGK Section
Ammonium nitrate; NH <sub>4</sub> NO <sub>3</sub>	1
6484-52-2 ( 25 - 40% )	
Iron sulphate; FeSO <sub>4</sub> +1H <sub>2</sub> O	1
7720-78-7 (1 - 5%)	
Copper sulphate anhydrous; CuSO <sub>4</sub>	2
7758-98-7 ( 0.1 - 1% )	

Manganese sulphate; MnSO <sub>4</sub> +1H <sub>2</sub> O 7785-87-7 ( 0.1 - 1% )	2
Sodium borate; Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> 1330-43-4 ( 0.1 - 1% )	1

Component	EU - Explosives Precursors Marketing and	EU - REACH (1907/2006) - Annex XVII -
	Use (98/2013) - Substances Subject to	Restrictions on Certain Dangerous
	Suspicious Transactions Reporting	Substances
Ammonium nitrate; NH₄NO₃	Present (in concentration of 16% by weight of	Use restricted. See item 58. (Conditions of
6484-52-2 ( 25 - 40% )	Nitrogen in relation to Ammonium nitrate or	restrictions 27 June 2010)
	higher)	·
Sodium borate; Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>		Use restricted. See item 30.
1330-43-4 ( 0.1 - 1% )		

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

#### 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; NH4NO3	Use restricted. See item 58.	
Sodium borate; Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub>	Use restricted. See item 30.	

Chemical Name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
	350	2500
Ammonium nitrate; NH₄NO₃		

## **Section 16: OTHER INFORMATION**

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

- H319 Causes serious eye irritation
- H272 May intensify fire; oxidizer
- H315 Causes skin irritation
- H302 Harmful if swallowed
- H400 Very toxic to aquatic life
- H410 Very toxic to aquatic life with long lasting effects
- H373 May cause damage to organs through prolonged or repeated exposure
- H411 Toxic to aquatic life with long lasting effects
- H360FD May damage fertility. May damage the unborn child
- H318 Causes serious eye damage

#### 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** 

05-Mar-2015

Restrictions on use

Restricted to professional users

Reason for revision

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

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