



# Safety Data Sheet

Issue Date: 27-Mar-2014

Revision Date: 27-Mar-2014

Version: 2

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

### 1.1. Product identifier

**Product Name:** VitalNova Blade  
**Product Code:** 31200110DA

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Recommended Use:** Fertilizer  
 Restricted to professional users  
**Uses Advised Against:** Consumer use.

### 1.3. Details of the supplier of the safety data sheet

**Manufacturer**  
 Everris International BV  
 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*

<b>Chronic aquatic toxicity</b>	Category 3 - (H412)
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*Classification according 67/548/EC and 88/379/EC or 1999/45/EC*

The product is classified and labelled in accordance with Directive 1999/45/EC.

#### **R-code(s)**

R52/53

Full text of R-phrases: see section 16

### 2.2. Label elements

**Product Identifier:**

**Signal Word:**

None

#### **Hazard Statements:**

H412 - Harmful to aquatic life with long lasting effects

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

P273 - Avoid release to the environment

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**

Ingredients	EC-No.	CAS-No	Weight %	Classification according to 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Urea	200-315-5	57-13-6	5 - 10%	NE	Not classified	01-2119463277-33
Zinc Sulfate Anhydrous	231-793-3	7733-02-0	0.1 - 1%	NE	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	no data available
Manganese sulphate; MnSO4+1H2O	232-08-99	7785-87-7	0.1 - 1%	N;R51/53 Xn;R48/20/22	STOT RE 2 (H373) Aquatic Chronic 2 (H411)	01-2119456624-35
Copper sulphate anh; CuSO4	231-847-6	7758-98-7	< 0.1%	N;R50/53 Xi;R36/38 Xn;R22	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	01-2119520566-40

**Full text of R-phrases: see section 16****Full text of H- and EUH-phrases: see section 16****Section 4: FIRST AID MEASURES****4.1. Description of first aid measures**

<b>General Advice:</b>	First aid measures should be executed by trained personnel only.
<b>Inhalation:</b>	In the case of inhalation of aerosol/mist consult a physician if necessary. Move to fresh air in case of accidental inhalation of vapours. If breathing is difficult, give oxygen.
<b>Skin Contact:</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.
<b>Eye Contact:</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
<b>Ingestion:</b>	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person.
<b>Protection of First-Aiders:</b>	Low hazard for usual industrial or commercial handling.

**4.2. Most important symptoms and effects, both acute and delayed****Symptoms:** May cause eye/skin irritation, Prolonged contact may cause redness and irritation**4.3. Indication of any immediate medical attention and special treatment needed****Notes to Physician:** 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. Use dry chemical, CO<sub>2</sub>, water spray or "alcohol" foam.

#### 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

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Wear protective clothes and suitable gloves.

## Section 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal Precautions:** Keep people away from and leeward of spill/leak.

**For Emergency Responders:** Use personal protection recommended in Section 8.

### 6.2. Environmental precautions

Do not allow product to enter soil, ground water, natural waterways or sewers. If product enters soil, ground water, natural waterways or drains, inform the local authorities.

### 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:** Bind with soil, sand, absorptive material.

### 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 containers tightly closed in a cool, well-ventilated place. Keep in a cool, well-ventilated place. Store in original container.

LGK (Germany)

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Packaging Materials:

Store in original container.

### 7.3. Specific end use(s)

Specific use(s)

Fertilizer; Read and follow label instructions; [www.everris.com](http://www.everris.com)

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

<i>Urea</i>	
Latvia - Occupational Exposure Limits - TWAs	10 mg/m <sup>3</sup> TWA
Bulgaria - Occupational Exposure Limits - TWAs	10.0 mg/m <sup>3</sup> TWA
Norway	TWA: 30 µg Hg/g Creatinine STEL: 45 µg Hg/g Creatinine
<i>Manganese sulphate; MnSO<sub>4</sub>·1H<sub>2</sub>O</i>	
UK oes/mel:	TWA: 0.5 mg/m <sup>3</sup>

Spain Occupational Exposure Limits Data - Time Weighted Average (TWA):	TWA: 0.2 mg/m <sup>3</sup>
Portugal	TWA: 0.2 mg/m <sup>3</sup>
Netherlands - OEL - MACs:	1 mg/m <sup>3</sup>
Finland - Occupational Exposure Limits - 8 hour	0.5 mg/m <sup>3</sup>
Finland	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>
Denmark	TWA: 0.2 mg/m <sup>3</sup>
Austria	STEL 2 mg/m <sup>3</sup> TWA: 0.5 mg/m <sup>3</sup>
Switzerland	TWA: 0.5 mg/m <sup>3</sup>
Poland	TWA: 0.3 mg/m <sup>3</sup>
Norway	TWA: 1 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> STEL: 3 ppm STEL: 0.3 mg/m <sup>3</sup>
Ireland	TWA: 0.2 mg/m <sup>3</sup>
<i>Copper sulphate anh; CuSO4</i>	
Russia TWA	0.5 mg/m <sup>3</sup> TWA Cu
Netherlands - OEL - MACs:	0.1 mg/kg TWA
Finland - Occupational Exposure Limits - 8 hour	1 mg/m <sup>3</sup> TWA Cu
Finland	TWA: 1 mg/m <sup>3</sup>
Austria	STEL 4 mg/m <sup>3</sup> STEL 0.4 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>
Switzerland	STEL: 0.2 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>
Poland	TWA: 0.2 mg/m <sup>3</sup>

**Derived No Effect Level (DNEL)**

No data available

**Predicted No Effect Concentration (PNEC)**

No data available.

**8.2. Exposure controls**

**Engineering Measures to Reduce Exposure:** Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment**

Eye/Face Protection: Tightly fitting safety goggles  
 Hand protection: Nitrile rubber (0.26 mm). Break through time. > 8 h.  
 Respiratory Protection: In case of insufficient ventilation wear suitable respiratory equipment  
 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.

**Environmental exposure controls** Do not allow into any sewer, on the ground or into any body of water.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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

<b>Physical State:</b>	liquid
<b>Color:</b>	brown.
<b>Odor:</b>	Not significant
<b>pH:</b>	no data available
<b>Melting Point/Freezing Point:</b>	no data available
<b>Boiling Point/Range:</b>	> 35 °C
<b>Flash Point:</b>	no data available
<b>Evaporation Rate:</b>	no data available
<b>Flammability (solid, gas):</b>	Non-flammable
<b>Vapor Pressure:</b>	no data available

<b>Vapor Density:</b>	no data available
<b>Specific Gravity:</b>	no data available
<b>Water Solubility:</b>	miscible
<b>Solubility(ies)</b>	miscible no data available
<b>Partition Coefficient:</b>	no data available
<b>Autoignition Temperature:</b>	not applicable
<b>Decomposition Temperature:</b>	no data available
<b>Explosive Properties:</b>	Doesn't present explosion hazard. Based on data of ingredients.

**9.2. Other information**

<b>Bulk density:</b>	no data available
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## Section 10: STABILITY AND REACTIVITY

**10.1. Reactivity**

Not reactive.

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions****Hazardous Decomposition Products:**

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

**Possibility of Hazardous Reactions:**

None under normal processing.

**10.4. Conditions to avoid**

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

**10.5. Incompatible materials**

Strong acids. Strong oxidizing agents.

**10.6. Hazardous decomposition products**

None under normal processing.

## Section 11: TOXICOLOGICAL INFORMATION

**11.1. Information on toxicological effects****Acute Toxicity****Product Information:**

<b>Inhalation:</b>	May cause irritation of respiratory tract.
<b>Eye Contact:</b>	May cause irritation.
<b>Skin Contact:</b>	May cause irritation.
<b>Ingestion:</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
<b>Unknown Acute Toxicity:</b>	0% of the mixture consists of ingredient(s) of unknown toxicity.
<b>The following values are calculated based on chapter 3.1 of the GHS document:</b>	
<b>ATEmix (oral):</b>	8,535.00 mg/kg

**Component Information:**

Ingredients	LD50 Oral	LD50 Dermal	LC50 Inhalation
Zinc Sulfate Anhydrous	= 500 mg/kg ( Rat )		
Manganese sulphate; MnSO4+1H2O	= 782 mg/kg ( Rat )		
Copper sulphate anh; CuSO4	= 300 mg/kg ( Rat )	= 1000 mg/kg ( Rabbit )	

<b>Skin Corrosion or Irritation</b>	See also section 3.
<b>Serious Eye Damage or Eye Irritation</b>	See also section 3.
<b>Sensitization</b>	See also section 3.
<b>Mutagenic effects</b>	See also section 3.

**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen.

**Reproductive Toxicity****Teratogenicity**

No data available.

**STOT - Single Exposure**

No known effects under normal use conditions.

**STOT - Repeated Exposure**

None under normal use conditions.

**Aspiration Hazard**

No data available.

## Section 12: ECOLOGICAL INFORMATION

**12.1. Toxicity**

Harmful to aquatic life with long lasting effects. Do not allow product to enter the environment uncontrolled.

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Ingredients	Algae/aquatic plants	Fish	Crustacea
Urea		16200 - 18300: 96 h <i>Poecilia reticulata</i> mg/L LC50	3910: 48 h <i>Daphnia magna</i> mg/L EC50 Static
Zinc Sulfate Anhydrous	0.056: 72 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50 static	0.162: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through 0.03 - 0.05: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 semi-static 0.34 - 0.93: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static 0.218 - 0.42: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 0.168 - 0.25: 96 h <i>Pimephales promelas</i> mg/L LC50 semi-static 0.15: 96 h <i>Cyprinus carpio</i> mg/L LC50 semi-static 3 - 4.6: 96 h <i>Lepomis macrochirus</i> mg/L LC50 flow-through 16.85 - 27.18: 96 h <i>Cyprinus carpio</i> mg/L LC50 static 49.23 - 64.16: 96 h <i>Poecilia reticulata</i> mg/L LC50 semi-static 0.48 - 1.72: 96 h <i>Poecilia reticulata</i> mg/L LC50 static 0.63: 96 h <i>Poecilia reticulata</i> mg/L LC50 3.55 - 6.32: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 0.06: 96 h <i>Pimephales promelas</i> mg/L LC50 static 0.23 - 0.48: 96 h <i>Pimephales promelas</i> mg/L LC50	0.538 - 0.908: 48 h <i>Daphnia magna</i> mg/L EC50 Static 0.75: 48 h <i>Daphnia magna</i> mg/L EC50
Copper sulphate anh; CuSO4		0.1: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50	0.024: 48 h <i>Daphnia magna</i> mg/L EC50

**12.2. Persistence and degradability**

No information available.

**12.3. Bioaccumulative potential**

Ingredients	LOGPOW
Urea	-1.59

**12.4. Mobility in soil**

No information available.

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

No information available.

**12.6. Other adverse effects**

not applicable

## 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 re-use empty containers. Dispose of as unused product.

**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**

**Component**

**IMDG - Marine Pollutants**

Copper sulphate anh; CuSO<sub>4</sub>  
7758-98-7 ( < 0.1% )

IMDG regulated marine pollutant (Listed in the index, listed under Copper sulphate, anhydrous, hydrates and solution)

**14.6**

**Special Provisions**

None

**14.7**

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not regulated

### 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

#### National regulations

*France*

**ICPE (FR):** Not regulated

*Germany*

**Gefahrstoffverordnung (Germany) TRGS 511** Not regulated

**LGK (Germany)** 13

**Water Endangering Class (WGK):** 2 (Everris classification)

Component	German WGK Section
Urea 57-13-6 ( 5 - 10% )	class 1
Zinc Sulfate Anhydrous 7733-02-0 ( 0.1 - 1% )	class 3
Manganese sulphate; MnSO4+1H2O 7785-87-7 ( 0.1 - 1% )	class 1
Copper sulphate anh; CuSO4 7758-98-7 ( < 0.1% )	class 2

#### European Union

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

### 15.2. Chemical safety assessment

Not required. Substance(s) usage is covered according to Reach regulation 1907/2006.

## Section 16: OTHER INFORMATION

#### Text of R Phrases mentioned in Section 3

R22 - Harmful if swallowed

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R48/20/22 - Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed

R36/38 - Irritating to eyes and skin

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

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

H319 - Causes serious eye 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.

**Classification procedure:** - Calculation method  
- Expert judgment and weight of evidence determination

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

**Issue Date:** 27-Mar-2014

**Revision Date:** 27-Mar-2014

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

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

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**End of Safety Data Sheet**