

Safety Data Sheet

Issue Date 20-Nov-2013

Revision Date 10-Oct-2019

Version: 6

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

1.1. Product identifier

Product Name Sierrablen 22-0-20
Product Code: 42350125DA
Synonyms: Sierrablen 22-0-16.6
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)
-----------------------	---------------------

2.2. Label elements



Signal Word: Danger

Hazard Statements:

H318 - Causes serious eye damage

Contains Biuret; $C_6H_8O_7$; Potassium sulphate; K_2SO_4

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

Other hazards (UN-GHS)

H316 - Causes mild skin irritation

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
Urea	200-315-5	57-13-6	40 - 65%	Not classified	01-2119463277-33
Potassium sulphate; K ₂ SO ₄	231-915-5	7778-80-5	25 - 40%	Eye Dam. 1 (H318)	01-2119489441-34
Sulphur; S	231-722-6	7704-34-9	5 - 10%	Skin Irrit. 2 (H315)	01-2119487295-27
Calcium sulphate dihydrate; CaSO ₄ +2H ₂ O	231-900-3	10101-41-4	1 - 5%	Not classified	01-2119444918-26
Biuret; C ₆ H ₈ O ₇	203-559-0	108-19-0	1 - 5%	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	no data available
Calcium carbonate; CaCO ₃	207-439-9	471-34-1	< 0.1%	Not classified	Exempt
Iron sulphate; FeSO ₄ +1H ₂ O	231-753-5	7720-78-7	< 0.1%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H302)	01-2119513203-57

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

In case of shortness of breath, give oxygen. Possible symptoms are coughing and/or dyspnoea. Move 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.

Eye Contact:

If eye irritation persists, consult a specialist. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Ingestion:

Do not induce vomiting without medical advice. If a person vomits when lying on his back, place him in the recovery position. Never give anything by mouth to an unconscious person. In case of respiratory difficulties practice oxygenotherapy. Possible symptoms are nausea and/or vomiting.

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. Use dry chemical, CO₂, 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

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: Ensure adequate ventilation. Avoid dust formation. Use personal protective equipment. Wear personal protective equipment.

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. Do not create a powder cloud by using a brush or compressed air. Prevent product from entering drains.

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

<i>Urea</i>	
Bulgaria - OEL - TWAs	10.0 mg/m ³ TWA
Latvia - OEL - TWAs	10 mg/m ³ TWA
<i>Potassium sulphate: K₂SO₄</i>	
Bulgaria - OEL - TWAs	10.0 mg/m ³ TWA
Latvia - OEL - TWAs	10 mg/m ³ TWA
<i>Sulphur: S</i>	
Latvia - OEL - TWAs	6 mg/m ³ TWA
Russia TWA	6 mg/m ³ TWA 1863
<i>Calcium sulphate dihydrate: CaSO₄+2H₂O</i>	
Belgium - 8 Hr TWA	10 mg/m ³ TWA
Portugal	TWA: 10 mg/m ³
Spain - Valores Limite Ambientales - VLE	TWA: 10 mg/m ³
Switzerland	TWA: 3 mg/m ³
UK EH40 WEL (8h)	10 mg/m ³ TWA (Inhalable) 4 mg/m ³ TWA (Respirable)
<i>Calcium carbonate: CaCO₃</i>	
Australia	10 mg/m ³ TWA inhalable dust
Czech Republic OEL	10.0 mg/m ³ TWA
FR - OEL - 8h VMEs	TWA: 10 mg/m ³
Korea - ISHA - OEL - TWAs	10 mg/m ³ TWA (Serial No. 572)

Latvia - OEL - TWAs	6 mg/m ³ TWA
Poland	TWA: 10 mg/m ³
Portugal	TWA: 10 mg/m ³
Switzerland	TWA: 3 mg/m ³
UK EH40 WEL (8h)	10 mg/m ³ TWA (inhalable) 4 mg/m ³ TWA (respirable)
<i>Iron sulphate; FeSO₄·1H₂O</i>	
Belgium - 8 Hr TWA	1 mg/m ³
Denmark	TWA: 1 mg/m ³
Finland	TWA: 1 mg/m ³
Ireland	TWA: 1 mg/m ³ STEL: 2 mg/m ³
Norway	TWA: 1 mg/m ³ STEL: 2 mg/m ³
Portugal	TWA: 1 mg/m ³
Spain - Valores Limite Ambientales - VLE	TWA: 1 mg/m ³
Switzerland	TWA: 1 mg/m ³
UK EH40 WEL (8h)	LTEL (8 hr TWA) 1 mg/m ³ STEL (15 min) 2mg/m ³

Derived No Effect Level (DNEL)

Component	Oral	Dermal	Inhalation
Urea 57-13-6 (40 - 65%)		580 mg/kg bw/day	292 mg/m ³
Potassium sulphate; K ₂ SO ₄ 7778-80-5 (25 - 40%)		21.3 mg/kg bw/day	37.6 mg/m ³

Predicted No Effect Concentration (PNEC)

No data available

Component	Fresh Water	Freshwater sediment	Sea Water	Sea sediment	Soil	Impact on Sewage Treatment
Urea 57-13-6 (40 - 65%)	0.47 mg/l		0.047 mg/l			
Potassium sulphate; K ₂ SO ₄ 7778-80-5 (25 - 40%)	0.68 mg/l		0.068 mg/l			10 mg/l

8.2. Exposure controls**Personal protective equipment****Eye/Face Protection**

Tightly fitting safety goggles

Hand protection

Nitrile rubber (0.26 mm). Break through time. > 8 h.

Respiratory Protection

No personal respiratory protective equipment normally required

Skin and body protection:

Usual safety precautions while handling the product will provide adequate protection against this potential effect

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:

white, orange.

Odor:

None

Bulk density:800 - 1100 kg/m³ no data available**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 derivatives 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

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (oral): 18,277.00 mg/kg

Unknown Acute Toxicity: 4% of the mixture consists of ingredient(s) of unknown toxicity.

Potassium sulphate; K₂SO₄ (7778-80-5)

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
---------------	-----------	-------------	-----------------

Urea	= 8471 mg/kg (Rat)		
Potassium sulphate; K ₂ SO ₄	= 6600 mg/kg (Rat)	> 2000 mg/kg (Rat)	N.E.
Sulphur; S	> 3000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 9.23 mg/L (Rat) 4 h
Biuret; C ₆ H ₈ O ₇	14300 - 15000 mg/kg (Rat)		
Calcium carbonate; CaCO ₃	= 6450 mg/kg (Rat)		
Iron sulphate; FeSO ₄ +1H ₂ O	= 500 mg/kg (Rat)	= 155 mg/kg (Rat)	

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

4% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
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
Potassium sulphate; K ₂ SO ₄	2900: 72 h Desmodesmus subspicatus mg/L EC50	653: 96 h Lepomis macrochirus mg/L LC50 3550: 96 h Lepomis macrochirus mg/L LC50 static 510 - 880: 96 h Pimephales promelas mg/L LC50 static	-	890: 48 h Daphnia magna mg/L EC50
Sulphur; S	-	866: 96 h Brachydanio rerio mg/L LC50 static 14: 96 h Lepomis macrochirus mg/L LC50 static 180: 96 h Oncorhynchus mykiss mg/L LC50 static	-	-
Iron sulphate; FeSO ₄ +1H ₂ 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

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
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**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: <u>14.3</u>	Not regulated
Hazard Class: <u>14.4</u>	Not regulated
Packing group: <u>14.5</u>	Not regulated
Environmental Hazard <u>14.6</u>	Not regulated
Special Provisions	None

Section 15: REGULATORY INFORMATION

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

Belgium

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 regulated

Component	German WGK Section
Urea 57-13-6 (40 - 65%)	1
Potassium sulphate; K ₂ SO ₄ 7778-80-5 (25 - 40%)	1
Sulphur; S 7704-34-9 (5 - 10%)	class 1
Calcium sulphate dihydrate; CaSO ₄ +2H ₂ O 10101-41-4 (1 - 5%)	1
Biuret; C ₆ H ₈ O ₇ 108-19-0 (1 - 5%)	3
Calcium carbonate; CaCO ₃ 471-34-1 (< 0.1%)	NWG
Iron sulphate; FeSO ₄ +1H ₂ O 7720-78-7 (< 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

Section 16: OTHER INFORMATION

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

- H335 - May cause respiratory irritation
- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H302 - Harmful if swallowed
- H318 - Causes serious eye damage
- H316 - Causes mild skin irritation

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

20-Nov-2013

Restrictions on use

Restricted to professional users

Reason for revision

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

This information contained herein is, to the best of Everris' knowledge and belief, accurate and reliable as of the date of preparation of this document. However, no warranty or guarantee, express or implied, is made as to the accuracy or reliability, and Everris shall not be liable for any loss or damage arising out of the use thereof. No authorization is given or implied to use any patented invention without a license. In addition, Everris shall not be liable for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.