Safety Data Sheet

Issue Date 07-Apr-2014 **Revision Date** 10-Oct-2019 **Version:** 7.02

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

1.1. Product identifier

Product Name	**Sierrablen Plus Active 19-5-18+2MgO+TE**
Product Code:	**41920125DA**
Synonyms:	**Sierrablen Plus 19-2.2-14.9+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)

2.2. Label elements

Signal Word: Danger

Hazard Statements:

H318 - Causes serious eye damage

Contains 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
Potassium sulphate; K_2SO_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
Mono ammonium phosphate; $NH_4H_2PO_4$	231-764-5	7722-76-1	5 - 10%	Not classified	01-2119488166-29
Manganese sulphate; $MnSO_4+1H_2O$	232-08-99	7785-87-7	0.1 - 1%	STOT RE 2 (H373) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)	01-2119456624-35
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

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 If not breathing, give artificial respiration. If symptoms persist, call a physician. If fumes from reactions are inhaled, move to fresh air immediately.

Skin Contact: If skin irritation persists, call a physician.

Eye Contact: Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.

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 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: Ensure adequate ventilation. Wear personal protective equipment. Evacuate personnel to safe areas.

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

6.2. Environmental precautions

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: Take up mechanically and collect in suitable container for disposal.

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 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 flammable material.

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
Sulphur; S	
Latvia - OEL - TWAs	6 mg/m³ TWA
Russia TWA	6 mg/m³ TWA 1863
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
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

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
Mono ammonium phosphate; $NH_4H_2PO_4$ 7722-76-1 (5 - 10%)		34.7 mg/kg bw/day	6.1 mg/m³
Manganese sulphate; $MnSO_4+1H_2O$ 7785-87-7 (0.1 - 1%)	37.6 mg/m³	0.004 mg/kg bw/day	0.2 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
Mono ammonium phosphate; $NH_4H_2PO_4$ 7722-76-1 (5 - 10%)	1.7 mg/l		0.17 mg/l			
Manganese sulphate; $MnSO_4+1H_2O$ 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.

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: 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

Odor: None

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

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
The following values are calculated based on chapter 3.1 of the GHS document:
ATEmix (oral): *19,620.00 mg/kg*

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

Potassium sulphate; K_2SO_4 (7778-80-5)

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium sulphate; K_2SO_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
Mono ammonium phosphate; $NH_4H_2PO_4$	= 5750 mg/kg (Rat)	> 7940 mg/kg (Rabbit)	
Manganese sulphate; $MnSO_4+1H_2O$	= 2125 mg/kg (Rat)		> 4.98 mg/L (Rat) 4h
Iron sulphate; $FeSO_4+1H_2O$	= 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 6% 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 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; $FeSO_4+1H_2O$	-	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

12.2. Persistence and degradability

Persistence and Degradability: No persistent or cumulative effects were observed.

12.3. Bioaccumulative potential

Bioaccumulation: Does not bioaccumulate.

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: Not regulated

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

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
Potassium sulphate; K_2SO_4 7778-80-5 (25 - 40%)	1
Sulphur; S 7704-34-9 (5 - 10%)	class 1
Mono ammonium phosphate; $NH_4H_2PO_4$ 7722-76-1 (5 - 10%)	1
Manganese sulphate; $MnSO_4+1H_2O$ 7785-87-7 (0.1 - 1%)	2
Iron sulphate; $FeSO_4+1H_2O$ 7720-78-7 (0.1 - 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

- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects
- H302 - Harmful if swallowed
- H332 - Harmful if inhaled
- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H318 - Causes serious eye damage
- H373 - May cause damage to organs through prolonged or repeated exposure in contact with skin
- H411 - Toxic to aquatic life with long lasting effects
- 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).
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