Safety Data Sheet

Issue Date: 18-Dec-2013 Revision Date: 30-Apr-2015 Version: 2

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

1.1. Product identifier

Product Name: Sierraform GT 15-0-26+Fe

Product Code 41050120DC

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 [SU 21].

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

Serious Eye Damage or Eye Irritation

Category 1 - (H318)

2.2. Label elements

Contains Iron sulphate; FeSO₄+1H₂O, Potassium sulphate; K₂SO₄



Signal Word:

Danger

Hazard Statements:

H318 - Causes serious eye damage

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/physician

P501 - Dispose of container in accordance with local regulation

P332 + P313 - If skin irritation occurs: Get medical advice/attention

Other hazards (UN-GHS)

H316 - Causes mild skin irritation

Sierraform GT 15-0-26+Fe Revision Date: 30-Apr-2015

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Ingredients	EC-No.	CAS-No	Weight %	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Potassium sulphate; K ₂ SO ₄	231-915-5	7778-80-5	40 - 65%	Eye Dam. 1 (H318)	01-2119489441-34
Urea	200-315-5	57-13-6	10 - 25%	Not classified	01-2119463277-33
Iron sulphate; FeSO ₄ +1H ₂ O	231-753-5	7720-78-7	5 - 10%	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.

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: Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists,

consult a specialist.

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 vommiting.

Protection of First-Aiders: Low hazard for usual industrial or commercial handling.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms: None under normal processing

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, 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

Revision Date: 30-Apr-2015

Coordinate fire extinguishing measures to fire in surrounding area.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions: Avoid dust formation. Ensure adequate ventilation. 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

Prevent further leakage or spillage if safe to do so. **Methods for Containment:**

Methods for Cleanup: Shovel or sweep up. Use up product completely. Packaging material is industrial waste.

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 bags should be closed well. Keep at temperatures between

0 °C and 40 °C.

LGK (Germany)

Packaging Materials: Bags or Bulk.

7.3. Specific end use(s)

Specific use(s) Fertilizer; Read and follow label instructions; www.everris.com

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

13

8.1. Control parameters

Potassium sulphate; K ₂ SO ₄	
Bulgaria - Occupational Exposure Limits - TWAs	10.0 mg/m ³ TWA
Latvia - Occupational Exposure Limits - TWAs	10 mg/m³ TWA
Urea	
Bulgaria - Occupational Exposure Limits - TWAs	10.0 mg/m³ TWA
Latvia - Occupational Exposure Limits - TWAs	10 mg/m³ TWA
Norway	TWA: 30 μg Hg/g Creatinine STEL: 30 μg Hg/g Creatinine
Iron sulphate; FeSO4+1H2O	
Belgium - 8 Hr TWA	1 mg/m³
Denmark	TWA: 1 mg/m ³
Finland	TWA: 1 mg/m ³
Ireland	TWA: 1 mg/m³ STEL: 2 mg/m³
Norway	TWA: 1 mg/m³ STEL: 1 mg/m³
Portugal	TWA: 1 mg/m ³
Spain OEL - Time Weighted Average (TWA):	TWA: 1 mg/m ³
Switzerland	TWA: 1 mg/m ³
UK oes/mel:	TWA: 1 mg/m ³

Predicted No Effect Concentration No information available. (PNEC)

Sierraform GT 15-0-26+Fe

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Revision Date: 30-Apr-2015

8.2. Exposure controls

Personal protective equipment

Eye/face Protection No special protective equipment required.

Skin and body protectionNo special protective equipment required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained. 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

Physical State:SolidAppearance:granulateColor:brown, grey.Odor:Not significantBulk density:800 - 900 kg/m³pH:no data availableMelting Point/Freezing Point:no data available

Boiling Point/Range: Solid, Not Applicable Flash Point: Solid, Not Applicable Solid, Not Applicable **Evaporation Rate:** Flammability (solid, gas): Non-flammable Vapor Pressure: Solid, Not Applicable Vapor Density: Solid, Not Applicable Specific Gravity: no data available Water Solubility: Soluble in water Solubility(ies) no data available **Partition Coefficient:** Solid. Not Applicable **Autoignition Temperature:** Not Applicable **Decomposition Temperature:** no data available

Explosive Properties: Doesn't present explosion hazard. Based on data of ingredients.

9.2. Other information

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

Possibility of hazardous reactions

None under normal processing.

Hazardous Decomposition Products:

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 bags should be closed well.

10.5. Incompatible materials

None known based on information supplied.

Sierraform GT 15-0-26+Fe Revision Date: 30-Apr-2015

10.6. Hazardous decomposition products

None under normal processing.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Information on the Likely Routes of Exposure (inhalation, ingestion, skin and eye contact):

Product Information

Inhalation May cause irritation of respiratory tract.

Eye contact May cause irritation.

Skin Contact May cause irritation.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Information on Toxicological

Effects:

Symptoms No information available.

Acute Toxicity

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

ATEmix (oral): 6,099.00 mg/kg

Unknown Acute Toxicity: 14% of the mixture consists of ingredient(s) of unknown toxicity.

Ingredients	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium sulphate; K ₂ SO ₄	= 6600 mg/kg (Rat)	> 2000 mg/kg (Rat)	
Urea	= 8471 mg/kg (Rat)		
Iron sulphate; FeSO ₄ +1H ₂ O	= 500 mg/kg (Rat)		

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

skin corrosion/irritationNo information available.Serious eye damage/eye irritationNo information available.Respiratory or skin sensitizationNo information available.Germ Cell MutagenicityNo information available.CarcinogenicityNo information available.

Reproductive Toxicity No information available.

STOT - Single Exposure No information available.

STOT - Repeated Exposure No information available.

Aspiration Hazard No information available.

Section 12: ECOLOGICAL INFORMATION

Revision Date: 30-Apr-2015

12.1. Toxicity

Ecotoxicity Do not allow product to enter the environment uncontrolled.

34% of the mixture consists of components(s) of unknown hazards to the aquatic **Unknown Aquatic Toxicity:**

environment.

Ingredients	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
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
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
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 information available.

12.3. Bioaccumulative potential

Bioaccumulation: No information available.

Ingredients	LOGPOW
Urea	-1.59

12.4. Mobility in soil

No information available. Mobility in soil

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

12.6. Other adverse effects

No information available. Mobility:

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

Sierraform GT 15-0-26+Fe

Revision Date: 30-Apr-2015

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

Transport in bulk according to Annex II of MARPOL 73/78 Not regulated

and the IBC Code

ADR/RID

14.1 UN-No: Not regulated

14.2

Proper shipping name: Not regulated

14.3

Hazard Class: Not regulated

<u>14.4</u>

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

<u>14.4</u>

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

<u>Belgium</u>

Denmark

Danish Sikkerhedsgruppe No data available

<u>France</u>

ICPE Not regulated

Germany

LGK (Germany)

Revision Date: 30-Apr-2015

Water Endangering Class (WGK):

1 (Everris classification)

Gefahrstoffverordnung (Germany) TRGS 511

Not regulated

Component	German WGK Section
Potassium sulphate; K ₂ SO ₄	class 1
7778-80-5 (40 - 65%)	
Urea	class 1
57-13-6 (10 - 25%)	
Iron sulphate; FeSO ₄ +1H ₂ O	class 1
7720-78-7 (5 - 10%)	

European Union

REACH:

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

Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not Applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not Applicable

15.2 Chemical safety assessment

Chemical Safety Report

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

Section 16: OTHER INFORMATION

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

H315 - Causes skin irritation

H319 - Causes serious eve 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

Globally Harmonized System of Classification and Labeling of Chemicals GHS: **EINECS**: European Inventory of Existing Commercial Chemical Substances Chemical Abstracts Service (division of the American Chemical Society) CAS:

PNEC: Predicted No Effect Concentration

DNEL: Derived No-Effect Level

Registration, Evaluation, authorization of Chemicals Reach: CLP: EU-GHS; Classification, Labelling and Packaging

OEL: Occupational Exposure Limit Time Weighted Average TWA: ATE: Acute Toxicity Estimate

EUH statement: CLP (EU) specific hazard statement

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Classification procedure: - Calculation method

- Expert judgment and weight of evidence determination

Revision Date: 30-Apr-2015

Key literature references and sources for data

According to EC Regulation 1907/2006 (Reach), Regulation EU

No. 2015/830

Regulation (EC) No 1272/2008

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

Issue Date: 18-Dec-2013

Revision Date: 30-Apr-2015

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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