# Safety Data Sheet

**Issue Date:** 25-Feb-2014 **Revision Date:** 25-Oct-2016 **Version:** 1.01

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

**1.1. Product identifier**

**Product Name:** **Sierrablen Plus 24-5-13**
**Product Code** **41910125DB**
**Synonyms:** **Sierrablen Plus Spring Starter 24-2.2-10.8**

**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*

| | |
|---|---|
| **Eye Irritation** | Category 1 - (H318) |

**2.2. Label elements**
Contains Ammonium Nitrate; $NH_4NO_3$, Potassium sulphate; $K_2SO_4$

**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

**Other hazards (UN-GHS)**
H316 - Causes mild skin irritation

## 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 |
|---|---|---|---|---|---|
| Urea | 200-315-5 | 57-13-6 | 40 - 65% | Not classified | 01-2119463277-33 |
| Potassium sulphate; $K_2SO_4$ | 231-915-5 | 7778-80-5 | 10 - 25% | Eye Dam. 1 (H318) | 01-2119489441-34 |
| Ammonium Nitrate; $NH_4NO_3$ | 229-347-8 | 6484-52-2 | 10 - 25% | Eye Irrit. 2 (H319)<br>Ox. Sol. 3 (H272) | 01-2119490981-27 |
| Sulphur; S | 231-722-6 | 7704-34-9 | 5 - 10% | Skin Irrit. 2 (H315) | 01-2119487295-27 |

**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:** Move to fresh air. If not breathing, give artificial respiration. If symptoms persist, call a physician.

**Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

**Eye Contact:** Rinse thoroughly with plenty of water, also under the eyelids. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. 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.

**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**

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:** 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 product to enter the environment uncontrolled.

**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. 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 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 bags should be closed well.

LGK (Germany) Exempt

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

**8.1. Control parameters**

| | |
|---|---|
| *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<br>STEL: 30 µg Hg/g Creatinine |
| *Potassium sulphate; $K_2SO_4$* | |
| **Bulgaria - Occupational Exposure Limits - TWAs** | 10.0 mg/m³ TWA |
| **Latvia - Occupational Exposure Limits - TWAs** | 10 mg/m³ TWA |
| *Ammonium Nitrate; $NH_4NO_3$* | |
| **Australia TWA** | N.A. |
| **Czech Republic OEL** | 10.0 mg/m³ TWA |
| *Sulphur; S* | |
| **Latvia - Occupational Exposure Limits - TWAs** | 6 mg/m³ TWA |
| **Russia TWA** | 6 mg/m³ TWA 1790 |

**Predicted No Effect Concentration (PNEC)** No information available.

**8.2. Exposure controls**

**Personal protective equipment**

**Eye/face Protection** No special protective equipment required.

**Skin and body protection** No 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:** | Solid |
| **Appearance:** | Granules |
| **Odor:** | Not significant |
| **Bulk density:** | 869 - 1019 kg/m$^3$ |
| **pH:** | 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):** | 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.

**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):** 32,803.00 mg/kg

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

| Ingredients | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| Urea | = 8471 mg/kg ( Rat ) | | |
| Potassium sulphate; $K_2SO_4$ | = 6600 mg/kg ( Rat ) | > 2000 mg/kg ( Rat ) | |
| Ammonium Nitrate; $NH_4NO_3$ | = 2217 mg/kg ( Rat ) | | > 88.8 mg/L ( Rat ) 4 h |
| Sulphur; S | > 3000 mg/kg ( Rat ) | > 2000 mg/kg ( Rabbit ) | > 9.23 mg/L ( Rat ) 4 h |

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

**skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ Cell Mutagenicity** No information available.

**Carcinogenicity** No 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

**12.1. Toxicity**

**Ecotoxicity** Do not allow product to enter the environment uncontrolled.

**Unknown Aquatic Toxicity:** 4% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

| Ingredients | 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; $K_2SO_4$ | 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 |
| Ammonium Nitrate; $NH_4NO_3$ | - | 65 - 85: 48 h Cyprinus carpio mg/L LC50 semi-static | - | - |
| 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 | - | - |

**12.2. Persistence and degradability**

**Persistence and Degradability:** No information available.

**12.3. Bioaccumulative potential**

**Bioaccumulation:** No information available.

| Ingredients | LOGPOW |
|---|---|
| Urea | -1.59 |
| Ammonium Nitrate; $NH_4NO_3$ | -3.1 |

**12.4. Mobility in soil**

**Mobility in soil** No information available.

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

**PBT and vPvB assessment** No information available.

**12.6. Other adverse effects**

**Mobility:** No information 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 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** | |
| **Marine Pollutant:** | Not regulated |
| **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**

**Belgium**

| Component | Belgium - Major Accidents - Qualifying Quantities for Safety Reporting | Belgium - Major Accidents - Qualifying Quantities for Accident Prevention |
|---|---|---|
| Ammonium Nitrate; $NH_4NO_3$ 6484-52-2 ( 10 - 25% ) | 2500 tonne (Note 3, applies to Ammonium nitrate in which the Nitrogen content due to Ammonium nitrate is >28% by weight containing <=0.2 % combustible material, >24.5% and <28% by weight containing <=0.4% combustible material and to aqueous Ammonium nitrate solutions in which the concentration of Ammonium nitrate is >80% by weight) | 350 tonne (Note 3, applies to Ammonium nitrate in which the Nitrogen content due to Ammonium nitrate is >28% by weight containing <=0.2 % combustible material, >24.5% and <28% by weight containing <=0.4% combustible material and to aqueous Ammonium nitrate solutions in which the concentration of Ammonium nitrate is >80% by weight) |

**Denmark**

| | |
|---|---|
| Danish Sikkerhedsgruppe | No data available |

**France**

| | |
|---|---|
| ICPE | Not regulated |

**Germany**

| | |
|---|---|
| LGK (Germany) | Exempt |
| Water Endangering Class (WGK): | 1 (Everris classification) |
| Gefahrstoffverordnung (Germany) TRGS 511 | C III |

| Component | German WGK Section |
|---|---|
| Urea<br>57-13-6 ( 40 - 65% ) | class 1 |
| Potassium sulphate; $K_2SO_4$<br>7778-80-5 ( 10 - 25% ) | class 1 |
| Ammonium Nitrate; $NH_4NO_3$<br>6484-52-2 ( 10 - 25% ) | class 1 |
| Sulphur; S<br>7704-34-9 ( 5 - 10% ) | class 1 |

**European Union**

**REACH:**

| Component | EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances |
|---|---|
| Ammonium Nitrate; $NH_4NO_3$<br>6484-52-2 ( 10 - 25% ) | Use restricted. See item 58. (Conditions of restrictions 27 June 2010) |

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 work

**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**
H319 - Causes serious eye irritation
H272 - May intensify fire; oxidizer
H315 - Causes skin irritation
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 statement: CLP (EU) specific hazard statement

| | |
|---|---|
| **Classification procedure:** | - Calculation method<br>- 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<br>Regulation (EC) No 1272/2008 |
| **Prepared by:** | Regulatory Affairs Department (INFO-MSDS@EVERRIS.COM) |
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| 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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