# Safety Data Sheet

**Issue Date** 24-Feb-2015 **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** **Greenmaster Liquid NK 10-0-10+TE**
**Product Code:** **31010110DA**
**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)*
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

**2.2. Label elements**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

**EU Specific Hazard Statements:**

EUH210 - Safety data sheet available on request

**Precautionary Statements:**

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

## 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 | 10 - 25% | Not classified | 01-2119463277-33 |
| Citric acid; $C_6H_8O_7$ | 201-069-1 | 77-92-9 | 10 - 25% | Eye Irrit. 2 (H319) | 01-2119457026-42 |
| Ammonium nitrate; $NH_4NO_3$ | 229-347-8 | 6484-52-2 | 1 - 5% | Eye Irrit. 2 (H319)<br>Ox. Sol. 3 (H272) | 01-2119490981-27 |
| Manganese-EDTA, Mn-EDTA | 239-407-5 | 15375-84-5 | < 0.1% | Not classified | 01-2119493600-40 |
| Disodium octaborate tetrahydrate | 234-541-0 | 12280-03-4 | < 0.1% | Repr. 1B (H360FD) | 01-2119490860-33 |
| Copper-EDTA; Cu-EDTA | 237-864-5 | 14025-15-1 | < 0.1% | Eye Irrit. 2 (H319)<br>Acute Tox. 4 (H302) | 01-2119963944-23 |

| | | | | | |
|---|---|---|---|---|---|
| Sodium molybdate; $Na_2MoO_4$ | 231-551-7 | 7631-95-0 | < 0.1% | Not classified | 01-2119489495-21 |

*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.

LGK (Germany) Exempt

### 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

| | |
|---|---|
| *Urea* | |
| **Bulgaria - OEL- TWAs** | 10.0 mg/m³ TWA |
| **Latvia - OEL - TWAs** | 10 mg/m³ TWA |
| *Citric acid; $C_6H_8O_7$* | |
| **greece OEL 15 minute** | 1 |
| *Ammonium nitrate; $NH_4NO_3$* | |
| **Australia** | N.A. |
| **Czech Republic OEL** | 10.0 mg/m³ TWA |
| *Manganese-EDTA, Mn-EDTA* | |
| **Czech Republic OEL** | 1 mg/m³ TWA |
| **Ireland** | TWA: 0.2 mg/m³<br>STEL: 0.6 mg/m³ |
| *Copper-EDTA; Cu-EDTA* | |
| **Austria** | STEL 0.4 mg/m³<br>TWA: 0.1 mg/m³ |
| **Australia** | N.A. |
| **Finland** | TWA: 0.02 mg/m³ |
| *Sodium molybdate; $Na_2MoO_4$* | |
| **Austria** | STEL 10 mg/m³<br>TWA: 5 mg/m³ |
| **Czech Republic OEL** | 5 mg/m³ TWA |
| **Denmark** | TWA: 5 mg/m³ |
| **Finland** | TWA: 0.5 mg/m³ |
| **FR - OEL - 8h VMEs** | TWA: 5 mg/m³<br>STEL: 10 mg/m³ |
| **Ireland** | TWA: 10 mg/m³<br>STEL: 30 mg/m³ |
| **Norway** | TWA: 5 mg/m³<br>STEL: 10 mg/m³ |
| **Poland** | STEL: 10 mg/m³<br>TWA: 4 mg/m³ |
| **Portugal** | TWA: 0.5 mg/m³ |
| **Spain - Valores Limite Ambientales - VLE** | TWA: 0.5 mg/m³ |
| **Switzerland** | TWA: 5 mg/m³ |

### Derived No Effect Level (DNEL)

| Component | Oral | Dermal | Inhalation |
|---|---|---|---|
| Urea<br>57-13-6 ( 10 - 25% ) | | 580 mg/kg bw/day | 292 mg/m³ |
| Ammonium nitrate; $NH_4NO_3$<br>6484-52-2 ( 1 - 5% ) | 36 mg/m³ | 5.12 mg/kg bw/day | 8.9 mg/m³ |

### Predicted No Effect Concentration (PNEC)

No data available

| Component | Fresh Water | Freshwater sediment | Sea Water | Sea sediment | Soil | Impact on Sewage Treatment |
|---|---|---|---|---|---|---|
| Urea<br>57-13-6 ( 10 - 25% ) | 0.47 mg/l | | 0.047 mg/l | | | |
| Ammonium nitrate; $NH_4NO_3$<br>6484-52-2 ( 1 - 5% ) | | | | | | 18 mg/l |

**8.2. Exposure controls**

**Personal protective equipment**

**Eye/Face Protection** Wear face-shield and protective suit for abnormal processing problems.
**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:** Liquid
**Appearance:** aqueous solution
**Odor:** None
**pH:** 6.5
**Melting Point/Freezing Point:** No data available
**Boiling Point/Range:** no data available. .
**Flash Point:** no data available. .
**Evaporation Rate:** no data available. .
**Flammability (solid, gas):** Not flammable
**Vapor Pressure:** no data available. .
**Vapour density** no data available. .
**Relative density** No data available
**Water Solubility:** No data available
**Solubility(ies)** No data available
**Partition Coefficient:** no data available. .
**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):* *2,101.00 mg/kg*

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

| Chemical Name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| Urea | = 8471 mg/kg ( Rat ) | | |
| Citric acid; $C_6H_8O_7$ | = 3 g/kg ( Rat ) = 3000 mg/kg ( Rat ) | | |
| Ammonium nitrate; $NH_4NO_3$ | = 2217 mg/kg ( Rat ) | > 5000 mg/kg | > 88.8 mg/L ( Rat ) 4 h |
| Disodium octaborate tetrahydrate | = 2500 mg/kg ( Rat ) | | |
| Sodium molybdate; $Na_2MoO_4$ | = 4233 mg/kg ( Rat ) | > 2000 mg/kg (Rat) | > 2080 mg/m$^3$ ( Rat ) 4 h |

**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** 0% of the mixture consists of components(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 |
| Citric acid; $C_6H_8O_7$ | - | 1516: 96 h Lepomis macrochirus mg/L LC50 static | - | 120: 72 h Daphnia magna mg/L EC50 |
| Ammonium nitrate; $NH_4NO_3$ | - | 65 - 85: 48 h Cyprinus carpio mg/L LC50 semi-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 |
| Citric acid; $C_6H_8O_7$ | -1.72 |
| Ammonium nitrate; $NH_4NO_3$ | -3.1 |

**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:** 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 ( 1 - 5% ) | 2500 tonne (technical grade; (a) this applies to Ammonium nitrate in which the Nitrogen content as a result of Ammonium nitrate is (i) between 24.5% and 28% by weight and which contain <=0.4% total combustible or (ii) >28% by weight and which contain <=0.2% combustible substances (b) aqueous Ammonium nitrate solutions in which the concentration of Ammonium nitrate is >80% by weight) | 350 tonne |

**Denmark**
Denmark No data available

**France**
ICPE Not regulated

**Germany**
LGK (Germany) Exempt
Water Endangering Class (WGK): 1 (Everris classification)
Gefahrstoffverordnung (Germany) TRGS 511 CIII

| Component | German WGK Section |
|---|---|
| Urea | 1 |

| | |
|---|---|
| 57-13-6 ( 10 - 25% ) | |
| Citric acid; $C_6H_8O_7$<br>77-92-9 ( 10 - 25% ) | class 1 |
| Ammonium nitrate; $NH_4NO_3$<br>6484-52-2 ( 1 - 5% ) | 1 |
| Manganese-EDTA, Mn-EDTA<br>15375-84-5 ( < 0.1% ) | 2 |
| Disodium octaborate tetrahydrate<br>12280-03-4 ( < 0.1% ) | class 3 |
| Copper-EDTA; Cu-EDTA<br>14025-15-1 ( < 0.1% ) | 2 |
| Sodium molybdate; $Na_2MoO_4$<br>7631-95-0 ( < 0.1% ) | 1 |

| **Component** | **EU - Explosives Precursors Marketing and Use (98/2013) - Substances Subject to Suspicious Transactions Reporting** | **EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances** |
|---|---|---|
| Ammonium nitrate; $NH_4NO_3$<br>6484-52-2 ( 1 - 5% ) | Present (in concentration of 16% by weight of Nitrogen in relation to Ammonium nitrate or higher) | Use restricted. See item 58. (Conditions of restrictions 27 June 2010) |
| Disodium octaborate tetrahydrate<br>12280-03-4 ( < 0.1% ) | | Use restricted. See item 30. |

**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

| Chemical Name | Restricted substance per REACH Annex XVII | Substance subject to authorization per REACH Annex XIV |
|---|---|---|
| Ammonium nitrate; $NH_4NO_3$ | Use restricted. See item 58. | |
| Disodium octaborate tetrahydrate | Use restricted. See item 30. | |

| Chemical Name | Lower-tier requirements (tons) | Upper-tier requirements (tons) |
|---|---|---|
| Ammonium nitrate; $NH_4NO_3$ | 350 | 2500 |

## Section 16: OTHER INFORMATION

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

- H360 - May damage fertility or the unborn child
- H302 - Harmful if swallowed
- H314 - Causes severe skin burns and eye damage
- H319 - Causes serious eye irritation
- H272 - May intensify fire; oxidizer

**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<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. Regulation (EC) No 1272/2008 (CLP). |
| **Prepared by** | Regulatory Affairs Department (INFO-MSDS@EVERRIS.COM) |
| **Issue Date** | 24-Feb-2015 |
| **Restrictions on use** | Restricted to professional users |
| **Reason for revision** | *** Indicates changes since the last revision. This version replaces all previous versions |