

Safety Data Sheet

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Version: 3

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

1.1. Product identifier

Product Name: Greenmaster Liquid High K 3-3-10+TE
Product Code: 31020199DA

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.

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

2.2. Label elements

Product Identifier:

Signal Word:

None

Hazard Statements:

H412 - Harmful to aquatic life with long lasting effects
 H314 - Causes severe skin burns and eye damage
 H302 - Harmful if swallowed
 EUH210 - Safety data sheet available on request

Precautionary Statements - EU (§28, 1272/2008)

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

Ingredients	EC-No.	CAS-No	Weight %	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Citric acid; C ₆ H ₈ O ₇	201-069-1	77-92-9	10 - 25%	Eye Irrit. 2 (H319)	01-2119457026-42

Urea	200-315-5	57-13-6	5 - 10%	Not classified	01-2119463277-33
Ammonium Nitrate; NH ₄ NO ₃	229-347-8	6484-52-2	1 - 5%	Eye Irrit. 2 (H319) 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%	Repro. 1B (H360)	01-2119490860-33
Copper-EDTA; Cu-EDTA	237-864-5	14025-15-1	< 0.1%	Eye Irrit. 2 (H319) Acute Tox. 4 (H302)	01-2119963944-23
Sodium molybdate; Na ₂ MoO ₄ +2H ₂ O	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:	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.
Ingestion:	Call a physician or Poison Control Centre immediately.
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.

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.

LGK (Germany) Exempt

Packaging Materials: Store in original container.

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

<i>Urea</i>	
Bulgaria - Occupational Exposure Limits - TWAs	10.0 mg/m ³ TWA
Latvia - Occupational Exposure Limits - TWAs	10 mg/m ³ TWA
Norway	TWA: 30 µg Hg/g Creatinine STEL: 45 µg Hg/g Creatinine
<i>Ammonium Nitrate; NH₄NO₃</i>	
Australia TWA	N.A.
Czech Republic OEL	10.0 mg/m ³ TWA
<i>Manganese-EDTA, Mn-EDTA</i>	
Czech Republic OEL	1 mg/m ³ TWA
Ireland	TWA: 0.2 mg/m ³
<i>Disodium octaborate tetrahydrate</i>	
Spain OEL - Time Weighted Average (TWA):	TWA: 2 mg/m ³
<i>Copper-EDTA; Cu-EDTA</i>	
Austria	STEL 4 mg/m ³ STEL 0.4 mg/m ³ TWA: 1 mg/m ³ TWA: 0.1 mg/m ³
Australia TWA	N.A.
Finland	TWA: 1 mg/m ³
<i>Sodium molybdate; Na₂MoO₄·2H₂O</i>	
Austria	STEL 10 mg/m ³ TWA: 5 mg/m ³
Czech Republic OEL	5 mg/m ³ TWA
Denmark	TWA: 5 mg/m ³

Finland	TWA: 0.5 mg/m ³
France - Occupational Exposure Limits - 8 Hour VMEs	TWA: 5 mg/m ³ STEL: 10 mg/m ³
Ireland	TWA: 10 mg/m ³ TWA: 0.5 mg/m ³
Norway	TWA: 5 mg/m ³ STEL: 10 mg/m ³
Poland	STEL: 10 mg/m ³ TWA: 4 mg/m ³
Portugal	TWA: 0.5 mg/m ³
Spain OEL - Time Weighted Average (TWA):	TWA: 0.5 mg/m ³
Sweden - OEL - 8 Hour	5 mg/m ³ LLV
Switzerland	TWA: 5 mg/m ³
UK oes/mel:	TWA: 5 mg/m ³

Derived No Effect Level (DNEL)

No data available

Predicted No Effect Concentration (PNEC)

No data available.

8.2. Exposure controls

Engineering Measures to Reduce Exposure: Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/Face Protection: Not required Wear face-shield and protective suit for abnormal processing problems.
 Hand protection: Nitrile rubber (0.26 mm). Break through time. > 8 h.
 Respiratory Protection: In case of insufficient ventilation wear suitable respiratory equipment.
 Skin and Body Protection: Lightweight protective clothing
 Hygiene Measures: Follow good housekeeping practices. When using, do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs.

Environmental exposure controls 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:	liquid
Appearance:	aqueous solution
Color:	green.
Odor:	Not significant
pH:	6.5
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

Bulk density: no data available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Not reactive.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions**Hazardous Decomposition Products:**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Possibility of Hazardous Reactions:

None under normal processing.

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**10.6. Hazardous decomposition products**

None under normal processing.

Section 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects****Acute Toxicity****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.

Unknown Acute Toxicity:

0% of the mixture consists of ingredient(s) of unknown toxicity.

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

ATEmix (oral): 1,963.00 mg/kg

ATEmix (dermal): 53,529.00 mg/kg

Component Information:

Ingredients	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium Nitrate; NH ₄ NO ₃	= 2217 mg/kg (Rat)		> 88.8 mg/L (Rat) 4 h
Disodium octaborate tetrahydrate	= 2500 mg/kg (Rat)		
Sodium molybdate; Na ₂ MoO ₄ +2H ₂ O	= 4233 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 2080 mg/m ³ (Rat) 4 h

Skin Corrosion or Irritation

See also section 3.

Serious Eye Damage or Eye Irritation

See also section 3.

Sensitization

See also section 3.

Mutagenic effects

See also section 3.

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Reproductive Toxicity**Teratogenicity**

No known effects under normal use conditions.

STOT - Single Exposure

No known effects under normal use conditions.

STOT - Repeated Exposure

None under normal use conditions.

Aspiration Hazard

None under normal use.

Section 12: ECOLOGICAL INFORMATION**12.1. Toxicity**

Harmful to aquatic life with long lasting effects.

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Ingredients	Algae/aquatic plants	Fish	Crustacea
Citric acid; C ₆ H ₈ O ₇		1516: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static	
Urea	> 10000: 192 h <i>Scenedesmus quadricauda</i> mg/L EC50	16200 - 18300: 96 h <i>Poecilia reticulata</i> mg/L LC50	3910: 48 h <i>Daphnia magna</i> mg/L EC50 Static

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

Ingredients	LOGPOW
Citric acid; C ₆ H ₈ O ₇	-1.72
Urea	-1.59
Ammonium Nitrate; NH ₄ NO ₃	-3.1

12.4. Mobility in soil

No data available.

12.5. Results of 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 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:**

No information available

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: 14.4	Not regulated
Packing group: 14.5	Not regulated
Environmental Hazard 14.6	Not regulated
Special Provisions	None

IATA

14.1	
UN-No: 14.2	Not regulated
Proper shipping name: 14.3	Not regulated
Hazard Class: 14.4	Not regulated
Packing group: 14.5	Not regulated
Environmental Hazard 14.6	Not regulated
Special Provisions	None

Section 15: REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Component	EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances
Ammonium Nitrate; NH ₄ NO ₃ 6484-52-2 (1 - 5%)	Use restricted. See item 58. (Conditions of restrictions 27 June 2010)

National regulationsBelgium

Component	Belgium - Major Accidents - Qualifying Quantities for Safety Reporting	Belgium - Major Accidents - Qualifying Quantities for Accident Prevention
Ammonium Nitrate; NH ₄ NO ₃ 6484-52-2 (1 - 5%)	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 Not regulated

France

ICPE Not regulated

Germany

Gefahrstoffverordnung (Germany) TRGS 511 Not regulated
 LGK (Germany) Exempt
 Water Endangering Class (WGK): 1 (Everris classification)

Component	German WGK Section
Citric acid; C ₆ H ₈ O ₇ 77-92-9 (10 - 25%)	class 1

Urea 57-13-6 (5 - 10%)	class 1
Ammonium Nitrate; NH ₄ NO ₃ 6484-52-2 (1 - 5%)	class 1
Sodium molybdate; Na ₂ MoO ₄ +2H ₂ O 7631-95-0 (< 0.1%)	class 1

European Union

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

15.2 Chemical safety assessment

Not required. 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**

H360 - May damage fertility or the unborn child

H302 - Harmful if swallowed

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 statement: CLP (EU) specific hazard statement.

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. 453/2010. Regulation (EC) No 1272/2008.

Prepared by:

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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End of Safety Data Sheet