Safety Data Sheet

Issue Date 15-Sep-2014 **Revision Date** 09-Oct-2019 **Version:** 3

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

1.1. Product identifier

Product Name	**Universol Green 23-6-10+2.7MgO+TE**
Product Code:	**20370225EB**
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 2 - (H319)
Oxidizing solids	Category 3 - (H272)

2.2. Label elements

Signal Word: Warning

Hazard Statements:

H319 - Causes serious eye irritation
H272 - May intensify fire; oxidizer

Precautionary Statements:

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P221 - Take any precaution to avoid mixing with combustibles
P280 - Wear eye protection/ face protection
P337 + P313 - If eye irritation persists: Get medical advice/attention

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
Ammonium nitrate; NH_4NO_3	229-347-8	6484-52-2	40 - 65%	Eye Irrit. 2 (H319) Ox. Sol. 3 (H272)	01-2119490981-27
Potassium nitrate; KNO_3	231-818-8	7757-79-1	10 - 25%	Ox. Sol. 3 (H272)	01-2119488224-35
Urea phosphate	225-464-3	4861-19-2	1 - 5%	Skin Corr. 1B (H314)	01-2119489460-34
Potassium sulphate; K_2SO_4	231-915-5	7778-80-5	1 - 5%	Eye Dam. 1 (H318)	01-2119489441-34

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 In the case of inhalation of aerosol/mist consult a physician if necessary. Possible symptoms are coughing and/or dyspnoea. If breathing is difficult, give oxygen. Move to fresh air.

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

Eye Contact: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Ingestion: Possible symptoms are nausea and/or vommiting. Clean mouth with water and drink afterwards plenty of water. If a person vomits when lying on his back, place him in the recovery position. Do not induce vomiting without medical advice. Consult a physician if necessary.

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: Flooding quantities of water.

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. The product itself does not burn. May intensify fire; oxidizer.

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. Avoid dust formation. Use personal protective equipment. Wear personal protective equipment.

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

Methods for Containment: Prevent further leakage or spillage if safe to do so.
Methods for Cleanup: Shovel or sweep up. Do not create a powder cloud by using a brush or compressed air.

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 containers dry and tightly closed to avoid moisture absorption and contamination. 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 packaging should be closed well. Keep at temperatures between 0 °C and 40 °C.

Packaging Materials: Store in original container. Store in a closed container.
PGS-7 (The Netherlands) 1.3/C
LGK (Germany) 5.1B

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

Ammonium nitrate; NH_4NO_3	
Australia	N.A.
Czech Republic OEL	10.0 mg/m³ TWA
Potassium nitrate; KNO_3	
Australia	> 10 mg/m³
Bulgaria - OEL- TWAs	5.0 mg/m³ TWA
Latvia - OEL - TWAs	5 mg/m³ TWA
Potassium sulphate; K_2SO_4	
Bulgaria - OEL- TWAs	10.0 mg/m³ TWA
Latvia - OEL - TWAs	10 mg/m³ TWA

Derived No Effect Level (DNEL)

Component	Oral	Dermal	Inhalation
Ammonium nitrate; NH_4NO_3 6484-52-2 (40 - 65%)	36 mg/m³	5.12 mg/kg bw/day	8.9 mg/m³
Potassium nitrate; KNO_3 7757-79-1 (10 - 25%)		20.8 mg/kg bw/day	36.7 mg/m³
Potassium sulphate; K_2SO_4 7778-80-5 (1 - 5%)		21.3 mg/kg bw/day	37.6 mg/m³

Predicted No Effect Concentration (PNEC)

No data available

Component	Fresh Water	Freshwater sediment	Sea Water	Sea sediment	Soil	Impact on Sewage Treatment
Ammonium nitrate;						18 mg/l

NH_4NO_3 6484-52-2 (40 - 65%)						
Potassium nitrate; KNO_3 7757-79-1 (10 - 25%)	0.45 mg/l		0.045 mg/l			18 mg/l
Potassium sulphate; K_2SO_4 7778-80-5 (1 - 5%)	0.68 mg/l		0.068 mg/l			10 mg/l

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: Follow good housekeeping practices. 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: Powder(s)

Color: Off-white.

Odor: None

Bulk density: 800 - 1100 kg/m^3

pH: 4 - 5 (200 g/l)

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

Keep away from open flames, hot surfaces and sources of ignition. Burning produces obnoxious and toxic fumes.

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

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
Ammonium nitrate; NH_4NO_3	= 2217 mg/kg (Rat)	> 5000 mg/kg	> 88.8 mg/L (Rat) 4 h
Potassium nitrate; KNO_3	= 3015 mg/kg (Rat)	> 2000 mg/kg	> 527 mg/m^3
Urea phosphate	2600 mg/kg		
Potassium sulphate; K_2SO_4	= 6600 mg/kg (Rat)	> 2000 mg/kg (Rat)	N.E.

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
Ammonium nitrate; NH_4NO_3	-	65 - 85: 48 h Cyprinus carpio mg/L LC50 semi-static	-	-
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

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
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: 1479
14.2
Proper shipping name: Oxidizing solid, N.O.S. (Potassium nitrate, Ammonium nitrate)
14.3
Hazard Class: 5.1
14.4
Packing group: III
Limited Quantity 5 kg
14.5
Marine Pollutant: Not regulated
14.6
EmS: F-A / S-Q
Special Provisions 223, 274, 900
14.7
Bulk transport according Annex II of MARPOL and IBC Code No data available

ADR/RID
14.1
UN-No: 1479

14.2
Proper shipping name: Oxidizing solid, N.O.S. (Potassium nitrate, Ammonium nitrate)
14.3
Hazard Class: 5.1
14.4
Packing group: III
14.5
Environmental Hazard Not regulated
14.6
Special Provisions 274
Tunnel restriction code E
Limited Quantity 5 kg

IATA

14.1
UN-No: 1479
14.2
Proper shipping name: Oxidizing solid, N.O.S. (Potassium nitrate, Ammonium nitrate)
14.3
Hazard Class: 5.1
14.4
Packing group: III
14.5
Environmental Hazard Not regulated
14.6
Special Provisions A3

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 (40 - 65%)	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
Potassium nitrate; KNO_3 7757-79-1 (10 - 25%)	10000 tonne; 5000 tonne	5000 tonne (in cases where this dangerous substance falls within category P5a Flammable liquids or P5b Flammable liquids, then for the purposes of this Regulation the lowest qualifying quantities applies); 1250 tonne

Denmark
Denmark No data available

France
ICPE Classified installation: article 4706

Germany

LGK (Germany)	5.1B
Water Endangering Class (WGK):	1 (Everris classification)
Gefahrstoffverordnung (Germany) TRGS 511	C III

Component	German WGK Section
Ammonium nitrate; NH_4NO_3 6484-52-2 (40 - 65%)	1
Potassium nitrate; KNO_3 7757-79-1 (10 - 25%)	1
Urea phosphate 4861-19-2 (1 - 5%)	class 1
Potassium sulphate; K_2SO_4 7778-80-5 (1 - 5%)	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 6484-52-2 (40 - 65%)	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)
Potassium nitrate; KNO_3 7757-79-1 (10 - 25%)	Present	

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.	

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

- H302 - Harmful if swallowed
- H314 - Causes severe skin burns and eye damage
- H319 - Causes serious eye irritation
- H272 - May intensify fire; oxidizer
- H318 - Causes serious eye damage

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).
Prepared by	Regulatory Affairs Department (INFO-MSDS@EVERRIS.COM)
Issue Date	15-Sep-2014
Restrictions on use	Restricted to professional users
Reason for revision	*** Indicates changes since the last revision. This version replaces all previous versions