

Safety Data Sheet

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

1.1. Product identifier

Product Name Universol Hard Water 151; 10-50-10+TE
Product Code: 20470225EA
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)
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2.2. Label elements



Signal Word: Warning

Hazard Statements:

H319 - Causes serious eye irritation

Precautionary Statements:

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P337 + P313 - If eye irritation persists: Get medical advice/attention

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
Potassium pentahydrogen bis(phosphate); PeKacid	238-961-5	14887-42-4	10 - 25%	Eye Irrit. 2 (H319)	01-2119510125-56

Potassium nitrate; KNO ₃	231-818-8	7757-79-1	5 - 10%	Ox. Sol. 3 (H272)	01-2119488224-35
Ammonium nitrate; NH ₄ NO ₃	229-347-8	6484-52-2	5 - 10%	Eye Irrit. 2 (H319) Ox. Sol. 3 (H272)	01-2119490981-27

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	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. Store in original container. Store in a closed container. 13

Packaging Materials:
LGK (Germany)

7.3. Specific end use(s)

Specific use(s)
Exposure scenario

Fertilizer; www.everris.com; Read and follow label instructions Mixture. Not required.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

<i>Potassium nitrate; KNO₃</i>	
Australia	> 10 mg/m ³
Bulgaria - OEL- TWAs	5.0 mg/m ³ TWA
Latvia - OEL - TWAs	5 mg/m ³ TWA
<i>Ammonium nitrate; NH₄NO₃</i>	
Australia	N.A.
Czech Republic OEL	10.0 mg/m ³ TWA

Derived No Effect Level (DNEL)

Component	Oral	Dermal	Inhalation
Potassium nitrate; KNO ₃ 7757-79-1 (5 - 10%)		20.8 mg/kg bw/day	36.7 mg/m ³
Ammonium nitrate; NH ₄ NO ₃ 6484-52-2 (5 - 10%)	36 mg/m ³	5.12 mg/kg bw/day	8.9 mg/m ³

Predicted No Effect Concentration (PNEC)

No data available

Component	Fresh Water	Freshwater sediment	Sea Water	Sea sediment	Soil	Impact on Sewage Treatment
Potassium nitrate; KNO ₃ 7757-79-1 (5 - 10%)	0.45 mg/l		0.045 mg/l			18 mg/l
Ammonium nitrate; NH ₄ NO ₃ 6484-52-2 (5 - 10%)						18 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:

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
Odor:	None
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

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 derivatives 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.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium nitrate; KNO ₃	= 3015 mg/kg (Rat)	> 2000 mg/kg	> 527 mg/m ³
Ammonium nitrate; NH ₄ NO ₃	= 2217 mg/kg (Rat)	> 5000 mg/kg	> 88.8 mg/L (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
Ammonium nitrate; NH ₄ NO 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
Ammonium nitrate; NH ₄ NO ₃	-3.1

12.4. Mobility in soil

No data available.

12.5. PBT and vPvB assessment

No data available.

Chemical Name	PBT and vPvB assessment
Potassium pentahydrogen bis(phosphate); PeKacid	Not applied

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
Potassium nitrate; KNO ₃ 7757-79-1 (5 - 10%)	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
Ammonium nitrate; NH ₄ NO ₃ 6484-52-2 (5 - 10%)	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 C

France

ICPE No data available

Germany

LGK (Germany) 13
 Water Endangering Class (WGK): 1 (Everris classification)
 Gefahrstoffverordnung (Germany) TRGS 511 C III

Component	German WGK Section
Potassium pentahydrogen bis(phosphate); PeKacid 14887-42-4 (10 - 25%)	3
Potassium nitrate; KNO ₃ 7757-79-1 (5 - 10%)	1
Ammonium nitrate; NH ₄ NO ₃ 6484-52-2 (5 - 10%)	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
Potassium nitrate; KNO ₃ 7757-79-1 (5 - 10%)	Present	
Ammonium nitrate; NH ₄ NO ₃ 6484-52-2 (5 - 10%)	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)

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 ₄ NO ₃	Use restricted. See item 58.	

Chemical Name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Ammonium nitrate; NH ₄ NO ₃	350	2500

Section 16: OTHER INFORMATION

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

- H319 - Causes serious eye irritation
- H302 - Harmful if swallowed
- 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
- 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

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Reason for revision

*** Indicates changes since the last revision. This version replaces all previous versions

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