Safety Data Sheet

Issue Date: 31-Jul-2014 **Revision Date:** 31-Jul-2014 **Version:** 1

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

1.1. Product identifier

Product Name: **Universol Soft Water 213R 14-7-22+5CaO+2MgO+TE**
Product Code **20360225EA**
Synonyms: **Universol Soft Water 213R 14-3.1-18.3+3.6Ca+1.2Mg+TE**

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

Serious Eye Damage or Eye Irritation	Category 1 - (H318)
Oxidizing solids	Category 3 - (H272)

Classification according 67/548/EC and 88/379/EC or 1999/45/EC
The product is classified and labelled in accordance with Directive 1999/45/EC
O - Oxidizing

R-code(s)
R08
Full text of R-phrases: see section 16

2.2. Label elements

Product Identifier:

Signal Word:
Danger

Hazard Statements:
H318 - Causes serious eye damage
H272 - May intensify fire; oxidizer
Contains Magnesium nitrate hexahydrate; Mg(NO3)2+6H2O, Potassium pentahydrogen bis(phosphate), PeKacid, Nitric acid ammonium calcium salt, Ammonium Nitrate; NH4NO3

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
P310 - Immediately call a POISON CENTER or doctor/physician
P210 - Keep away from heat/sparks/open flames/hot surfaces. — No smoking
P221 - Take any precaution to avoid mixing with combustibles
P280 - Wear protective gloves/protective clothing/eye protection/face protection

Other hazards (UN-GHS)
MAY BE HARMFUL IF SWALLOWED.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Ingredients	EC-No.	CAS-No	Weight %	Classification according to 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Nitric acid ammonium calcium salt	239-289-5	15245-12-2	10 - 25%	Xn;R22 Xi;R41	Eye Dam. 1 (H318) Acute Tox. 4 (H302)	01-2119493947-16
Magnesium nitrate hexahydrate; Mg(NO3)2+6H2O	233-826-7	13446-18-9	10 - 25%	NE	Eye Irrit. 2 (H319)	01-2119491164-38
Ammonium Nitrate; NH4NO3	229-347-8	6484-52-2	10 - 25%	O;R8 Xi;R36	Eye Irrit. 2 (H319) Ox. Sol. 3 (H272)	01-2119490981-27
Potassium pentahydrogen bis(phosphate), PeKacid	238-961-5	14887-42-4	5 - 10%	Xi;R36	Eye Irrit. 2 (H319)	01-2119510125-56
Iron EDTA; Fe-EDTA	239-802-2	15708-41-5	0.1 - 1%	NE	Not classified	01-2119496228-27
Manganese-EDTA, Mn-EDTA	239-407-5	15375-84-5	0.1 - 1%	NE	Not classified	01-2119493600-40

Copper-EDTA; Cu-EDTA	237-864-5	14025-15-1	< 0.1%	Xn;R22	Acute Tox. 4 (H302)	01-2119963944-23
Boric Acid; H3BO3	233-139-2	10043-35-3	< 0.1%	Repr.Cat.2;R60-61	Repr. 1B (H360FD)	01-2119486683-25
Sodium molybdate; Na2MoO4+2H2O	231-551-7	7631-95-0	< 0.1%	NE	Not classified	01-2119489495-21

Full text of R-phrases: see section 16
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.

Ingestion: Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person.

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:
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

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.
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) 5.1B
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

Ammonium Nitrate; NH4NO3	
Czech Republic OEL	10.0 mg/m³ TWA
Iron EDTA; Fe-EDTA	
Spain Occupational Exposure Limits Data - Time Weighted Average (TWA):	TWA: 1 mg/m³
Portugal	TWA: 1 mg/m³
Finland	TWA: 1 mg/m³
Denmark	TWA: 1 mg/m³
Switzerland	TWA: 1 mg/m³
Manganese-EDTA, Mn-EDTA	
Czech Republic OEL	1 mg/m³ TWA
Ireland	TWA: 0.2 mg/m³
Copper-EDTA; Cu-EDTA	
Finland	TWA: 1 mg/m³
Austria	STEL 4 mg/m³ STEL 0.4 mg/m³ TWA: 1 mg/m³ TWA: 0.1 mg/m³
Boric Acid; H3BO3	
Latvia - Occupational Exposure Limits - TWAs	10 mg/m³ TWA
Bulgaria - Occupational Exposure Limits - TWAs	5.0 mg/m³ TWA (as B, listed under Boron and its inorganic compounds)
Spain Occupational Exposure Limits Data - Time Weighted Average (TWA):	STEL: 6 mg/m³ TWA: 2 mg/m³
Portugal	STEL: 6 mg/m³ TWA: 2 mg/m³
Portugal - TWAs	2 mg/m³ TWA
Switzerland	STEL: 10 mg/m³ TWA: 10 mg/m³
Sodium molybdate; Na2MoO4+2H2O	
UK oes/mel:	TWA: 5 mg/m³

France - Occupational Exposure Limits - 8 Hour VMEs	TWA: 5 mg/m³ STEL: 10 mg/m³
Czech Republic OEL	5 mg/m³ TWA
Spain Occupational Exposure Limits Data - Time Weighted Average (TWA):	TWA: 0.5 mg/m³
Portugal	TWA: 0.5 mg/m³
Finland - Occupational Exposure Limits - 8 hour	6 mg/m³
Finland	TWA: 0.5 mg/m³
Denmark	TWA: 5 mg/m³
Austria	STEL 10 mg/m³ TWA: 5 mg/m³
Switzerland	TWA: 5 mg/m³
Poland	STEL: 10 mg/m³ TWA: 4 mg/m³
Norway	TWA: 5 mg/m³ STEL: 10 mg/m³
Ireland	TWA: 10 mg/m³ TWA: 0.5 mg/m³
France - Valeurs Limites d'exposition (VLE)	5 mg/m³

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:	Tightly fitting safety goggles
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:	Solid
Appearance:	Prills, flakes and powder, Crystals
Color:	Off-white.
Odor:	Not significant
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

Bulk density: +/- 1.03 kg/dm3

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: Causes serious eye damage.

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): 2,640.00 mg/kg

Component Information:

Ingredients	LD50 Oral	LD50 Dermal	LC50 Inhalation
Nitric acid ammonium calcium salt	= 2000 mg/kg (Rat)		
Ammonium Nitrate; NH4NO3	= 2217 mg/kg (Rat)		> 88.8 mg/L (Rat) 4 h
Boric Acid; H3BO3	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 0.16 mg/L (Rat) 4 h
Sodium molybdate; Na2MoO4+2H2O	= 4233 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 2080 mg/m³ (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

Ingredients	EU - GHS - SV - CLP (1272/2008) - Reproductive Toxicity
Boric Acid; H3BO3	Reproductive Toxicity - Repr. 1B: H360FD May damage fertility. May damage the unborn child. (C >= 5.5 %)

Teratogenicity No data available.

STOT - Single Exposure No known effects under normal use conditions.

STOT - Repeated Exposure None under normal use conditions.

Aspiration Hazard No data available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Do not allow product to enter the environment uncontrolled.

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

Ingredients	Algae/aquatic plants	Fish	Crustacea
Nitric acid ammonium calcium salt		447: 48 h Carassius auratus mg/L LC50	
Boric Acid; H3BO3			115 - 153: 48 h Daphnia magna mg/L EC50

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

Ingredients	LOGPOW
Nitric acid ammonium calcium salt	0
Ammonium Nitrate; NH4NO3	-3.1
Boric Acid; H3BO3	-0.757

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

Ingredients	PBT and vPvB assessment
Potassium pentahydrogen bis(phosphate), PeKacid 14887-42-4	not applicable

12.6. Other adverse effects

not applicable

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: 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
Marine Pollutant: Not regulated

14.6

EmS:	F-A / S-Q
Special Provisions	223, 274, 900
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:	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

Component	EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances
Ammonium Nitrate; NH4NO3 6484-52-2 (10 - 25%)	Use restricted. See item 58. (Conditions of restrictions 27 June 2010)

National regulations

France

ICPE (FR):	Classified installation: article 1331 (Type III)

Germany

Gefahrstoffverordnung (Germany) TRGS 511	C III

LGK (Germany) 5.1B
Water Endangering Class (WGK): 1 (Everris classification)

Component	German WGK Section
Ammonium Nitrate; NH4NO3 6484-52-2 (10 - 25%)	class 1
Iron EDTA; Fe-EDTA 15708-41-5 (0.1 - 1%)	class 2
Boric Acid; H3BO3 10043-35-3 (< 0.1%)	class 1
Sodium molybdate; Na2MoO4+2H2O 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

Text of R Phrases mentioned in Section 3
R8 - Contact with combustible material may cause fire
R22 - Harmful if swallowed
R34 - Causes burns
R41 - Risk of serious damage to eyes
R60 - May impair fertility
R61 - May cause harm to the unborn child

Full text of H-Statements referred to under sections 2 and 3
H360FD - May damage fertility. May damage the unborn child
H319 - Causes serious eye irritation
H302 - Harmful if swallowed
H318 - Causes serious eye damage
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:	Regulatory Affairs Department (INFO-MSDS@EVERRIS.COM)
Issue Date:	31-Jul-2014
Revision Date:	31-Jul-2014
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

This information contained herein is, to the best of Everris' knowledge and belief, accurate and reliable as of the date of preparation of this document. However, no warranty or guarantee, express or implied, is made as to the accuracy or reliability, and Everris shall not be liable for any loss or damage arising out of the use thereof. No authorization is given or implied to use any patented invention without a license. In addition, Everris shall not be liable for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.

End of Safety Data Sheet