Safety Data Sheet

Issue Date: 25-Aug-2014 **Revision Date:** 25-Oct-2016 **Version:** 2.02

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

1.1. Product identifier

Product Name: **Universol Basis 4-19-35+4.1MgO+TE**
Product Code **20430225EA**

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 [SU 21].

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

Eye Irritation	Category 1 - (H318)

2.2. Label elements



Signal Word:
Danger

Hazard Statements:
H318 - Causes serious eye damage

Contains Potassium sulphate; K_2SO_4

Precautionary Statements:
P280 - Wear eye protection/ face protection
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

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
Potassium sulphate; K_2SO_4	231-915-5	7778-80-5	10 - 25%	Eye Dam. 1 (H318)	01-2119489441-34
Boric Acid; H_3BO_3	233-139-2	10043-35-3	0.1 - 1%	Repr. 1B (H360FD)	01-2119486683-25

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.

Protection of First-Aiders: Avoid contact with eyes. Use personal protective equipment.

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. 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 bags should be closed well. Keep at temperatures between 0 °C and 40 °C.

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

Potassium sulphate; K_2SO_4	
Bulgaria - Occupational Exposure Limits - TWAs	10.0 mg/m³ TWA
Latvia - Occupational Exposure Limits - TWAs	10 mg/m³ TWA
Boric Acid; H_3BO_3	
Australia TWA	12 mg/m³
Belgium - 8 Hr TWA	2 mg/m³ TWA borate
Bulgaria - Occupational Exposure Limits - TWAs	5.0 mg/m³ TWA (as B, listed under Boron and its inorganic compounds)
Latvia - Occupational Exposure Limits - TWAs	10 mg/m³ TWA
Portugal	STEL: 6 mg/m³ TWA: 2 mg/m³
Spain OEL - Time Weighted Average (TWA):	STEL: 6 mg/m³ TWA: 2 mg/m³
Switzerland	STEL: 10 mg/m³ TWA: 10 mg/m³

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: No personal respiratory protective equipment normally required
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
Color:	Off-white.
Odor:	Not significant
Bulk density:	± 1210 kg/m^3
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

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

Information on the Likely Routes of Exposure (inhalation, ingestion, skin and eye contact):

Product Information

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Inhalation	Inhalation of dust in high concentration may cause irritation of respiratory system.
Eye contact	Causes serious eye damage.

Skin Contact May cause irritation.

Ingestion May cause gastrointestinal discomfort if consumed in large amounts.

Information on Toxicological Effects:

Symptoms: No information available

Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document:
ATEmix (oral): 42,796.00 mg/kg

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

Ingredients	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium sulphate; K_2SO_4	= 6600 mg/kg (Rat)	> 2000 mg/kg (Rat)	
Boric Acid; H_3BO_3	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 0.16 mg/L (Rat) 4 h

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure:
No additional information available

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Ecotoxicity effects: Do not allow product to enter the environment uncontrolled.
Unknown Aquatic Toxicity: 0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Ingredients	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
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
Boric Acid; H_3BO_3	-	1020: 72 h Carassius auratus mg/L LC50 flow-through	-	115 - 153: 48 h Daphnia magna mg/L EC50

12.2. Persistence and degradability
Persistence and Degradability: No information available.

12.3. Bioaccumulative potential
Bioaccumulation: No information available.

Ingredients	LOGPOW
Boric Acid; H_3BO_3	-0.757

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment
PBT and vPvB assessment No information available.

12.6. Other adverse effects
Mobility: No information 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: 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

Denmark

Danish Sikkerhedsgruppe	No data available

France

ICPE	Not regulated

Germany

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

Component	German WGK Section
Potassium sulphate; K_2SO_4 7778-80-5 (10 - 25%)	class 1
Boric Acid; H_3BO_3 10043-35-3 (0.1 - 1%)	class 1

European Union

REACH:

Component	EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances
Boric Acid; H_3BO_3 10043-35-3 (0.1 - 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 Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Section 16: OTHER INFORMATION

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

H318 - Causes serious eye damage
H360FD - May damage fertility. May damage the unborn child

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. 2015/830 Regulation (EC) No 1272/2008
Prepared by:	Regulatory Affairs Department (INFO-MSDS@EVERRIS.COM)
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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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