Safety Data Sheet

Issue Date 05-Nov-2013

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 Product Code: Pure substance/mixture

Agroleaf Power High N; 31-11-11+TE E20950315GB Mixture.

1.2. Relevant identified uses of the substance or mixture and uses advised againstRecommended UseFertilizer (PC12). Restricted to professional users.Uses Advised Against:Consumer use [SU 21].

<u>1.3. Details of the supplier of the safety data sheet</u> 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) This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

Signal Word: None

EU Specific Hazard Statements:

EUH210 - Safety data sheet available on request

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
Urea	200-315-5	57-13-6	65 - 80%	Not classified	01-2119463277-33
Mono potassium phosphate; M.K.P.	231-913-4	7778-77-0	10 - 25%	Not classified	01-2119490224-41
Potassium nitrate; KNO3	231-818-8	7757-79-1	5 - 10%	Ox. Sol. 3 (H272)	01-2119488224-35
Boric acid; H ₃ BO ₃	233-139-2	10043-35-3	0.1 - 1%	Repr. 1B (H360FD)	01-2119486683-25

Component	SVHC candidates
Boric acid; H ₃ BO ₃	Present
10043-35-3 (0.1 - 1%)	

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	Possible symptoms are coughing and/or dyspnoea. If not breathing, give artificial respiration. If symptoms persist, call a physician.
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:	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. Never give anything by mouth to an unconscious person. 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:

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

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:Sweep-up to prevent slipping hazard. Use 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:Sweep up and shovel.

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:

Packaging Materials: LGK (Germany)

7.3. Specific end use(s)

Specific use(s) Exposure scenario 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.

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

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

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Urea	
Bulgaria - OEL- TWAs	10.0 mg/m³ TWA
Latvia - OEL - TWAs	10 mg/m³ TWA
Potassium nitrate; KNO3	
Australia	> 10 mg/m ³
Bulgaria - OEL- TWAs	5.0 mg/m³ TWA
Latvia - OEL - TWAs	5 mg/m³ TWA
Boric acid; H ₃ BO ₃	
Australia	12 mg/m ³
Belgium - 8 Hr TWA	2 mg/m ³ TWA borate
Bulgaria - OEL- TWAs	5.0 mg/m ³ TWA (as B, listed under Boron and its inorganic compounds)
Ireland	TWA: 2 mg/m ³
	STEL: 6 mg/m ³
Latvia - OEL - TWAs	10 mg/m³ TWA
Portugal	STEL: 6 mg/m ³
	TWA: 2 mg/m ³
Spain - Valores Limite Ambientales - VLE	STEL: 6 mg/m ³
	TWA: 2 mg/m ³
Switzerland	STEL: 1.8 mg/m ³
	TWA: 1.8 mg/m ³

Derived No Effect Level (DNEL)

Component	Oral	Dermal	Inhalation
Urea		580 mg/kg bw/day	292 mg/m ³
57-13-6(65 - 80%)			
Mono potassium phosphate; M.K.P.			4.07 mg/m ³
7778-77-0(10 - 25%)			_
Potassium nitrate; KNO ₃		20.8 mg/kg bw/day	36.7 mg/m ³
7757-79-1 (5 - 10%)			_

Predicted No Effect Concentration (PNEC)

No data available

Component	Fresh Water	Freshwater sediment	Sea Water	Sea sediment	Soil	Impact on Sewage Treatment
Urea 57-13-6(65 - 80%)	0.47 mg/l		0.047 mg/l			
Mono potassium phosphate; M.K.P. 7778-77-0 (10 - 25%)	0.05 mg/l		0.005 mg/l			
Potassium nitrate; KNO ₃ 7757-79-1 (5 - 10%)	0.45 mg/l		0.045 mg/l			18 mg/l

8.2. Exposure controls

Personal protective equipment	
Eye/Face Protection	Tightly fitting safety goggles
Hand protection	Gloves. 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:	Wear suitable 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:	Crystals
Color:	light green.
Odor:	None
Bulk density:	800 - 1200 kg/m³
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

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

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

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

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Urea	= 8471 mg/kg (Rat)		
Mono potassium phosphate; M.K.P.	= 3200 mg/kg (Rat)	> 4640 mg/kg (Rabbit)	
Potassium nitrate; KNO3	= 3015 mg/kg (Rat)	> 2000 mg/kg	> 527 mg/m ³
Boric acid; H ₃ BO ₃	= 2660 mg/kg (Rat)	> 2000 mg/kg	> 0.16 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 Unknown Aquatic Toxicity

Should not be released into the environment 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
Urea	> 10000: 192 h Scenedesmus quadricauda mg/L EC50	16200 - 18300: 96 h Poecilia reticulata mg/L LC50	-	3910: 48 h Daphnia magna mg/L EC50 Static 10000: 24 h Daphnia magna Straus mg/L

				EC50
Boric acid; H ₃ BO ₃	-	1020: 72 h Carassius	-	115 - 153: 48 h Daphnia
		auratus mg/L LC50		magna mg/L EC50
		flow-through		

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
Urea	-1.59
Boric acid; H ₃ BO ₃	-0.757

12.4. Mobility in soil

12.5. PBT and vPvB assessment

12.6. Other adverse effects

No data available. No data available.

No data available.

Section 13: DISPOSAL CONSIDERATIONS

<u>13.1. Waste treatment methods</u> 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: 14.2	Not regulated	
Proper shipping name:	Not regulated	
<u>14.3</u> Hazard Class:	Not regulated	
14.4	Not regulated	
Packing group:	Not regulated	
<u>14.5</u> Marine Pollutant:	Not applied	
14.6		
Special Provisions	None	
Bulk transport according Annex II of MARPOL and IBC Code No data available		

ADR/RID	
14.1	
UN-No:	Not regulated
<u>14.2</u>	
Proper shipping name:	Not regulated
<u>14.3</u>	
Hazard Class:	Not regulated
<u>14.4</u>	
Packing group:	Not regulated
14.5	Net required
Environmental Hazard	Not regulated
<u>14.6</u> Special Provisions	Nene
Special Provisions	None

ΙΑΤΑ	
<u>14.1</u>	
UN-No: 14.2_	Not regulated
Proper shipping name:	Not regulated
<u>14.3</u> Hazard Class:	Not regulated
14.4	Not regulated
Packing group:	Not regulated
<u>14.5</u>	Net 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

Belgium

Component	Belgium - Major Accidents - Qualifying Quantities for Safety Reporting		Belgium - Major Accidents - Qualifying Quantities for Accident Prevention
Potassium nitrate; KNO₃ 7757-79-1 (5 - 10%)	10000 tonne; 5000	0 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	1	No data available	
France ICPE	ı	Not regulated	
<u>Germany</u> LGK (Germany) Water Endangering Class (WGK): Gefahrstoffverordnung (Germany) TRGS 511		13 1 (Everris classificatio Not regulated	n)
Component		German WGK S	ection
Urea 57-13-6(65-80%)		1	
Mono potassium phosphate; M.K.P. 7778-77-0 (10 - 25%)		1	
Potassium nitrate; KNO ₃ 7757-79-1 (5 - 10%)		1	
Boric acid; H₃BO₃ 10043-35-3 (0.1 - 1%)		1	
Component	EU - Explosives Prec Use (98/2013) - Subst Suspicious Transacti	ances Subject to	EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances
Potassium nitrate; KNO ₃ Present			
7757-79-1 (5 - 10%) Boric acid; H₃BO₃ 10043-35-3 (0.1 - 1%)			Use restricted. See item 30.
Component		EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances for Eventual Inclusion in Annex XIV	
Boric acid; H₃BO₃ 10043-35-3 (0.1 - 1%)		Reason for inclusion Tox	tic for reproduction, Article 57c (233-139-2)

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
Boric acid; H ₃ BO ₃	Use restricted. See item 30.	

Section 16: OTHER INFORMATION

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

- H360FD May damage fertility. May damage the unborn child
- H302 Harmful if swallowed

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).

 No. 2015/830. Regulation (EC) No 1272/2008 (CLP).

 Prepared by
 Regulatory Affairs Department (INFO-MSDS@EVERRIS.COM)

 Issue Date
 05-Nov-2013

 Restrictions on use
 Restricted to professional users

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

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.