Safety Data Sheet

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Last Revision Date 19-Sep-2024 Version: 3

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name Universol Basis 159; 4-19-35+4.1MgO+TE

Product Code 2043-225HA

Unique Formula Identifier (UFI) MEN5-M0J1-E00R-3Y4S

Safety data sheet number 2043-225HA

REACH registration number Not applicable

Synonyms: Universol Basis 4-8-29+2.5Mg+TE

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 (SU21)

Reason why uses advised against Use advised against in Chemical Safety Assessment per REACH Annex I point 7 2.3

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-RA@ICL-GROUP.COM

Non-Emergency Telephone Number +31 (0) 418655700

1.4. Emergency telephone number

IN CASE OF AN EMERGENCY CALL: +44 1235 239 670 (24/7)

Europe	112
Austria	+43 1 406 43 43
Belgium	+32 (0) 70 245 245
Denmark	+45 8212 1212
Finland	0800 147 111
France	+33 (0)1 45 42 59
Ireland	01 809 2566
Netherlands	088 755 8000 (24/7)
Norway	+47 22 59 13 00
Poland	+48 42 2538 400
Portugal	+351 800 250 250
Spain	+34 91 562 04 20
Sweden	112
Switzerland	Tox Info SW 145 (24h)
United Kingdom	111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

	0 (4 (11040)
Serious eve damage/eve irritation	Category 1 - (H318)

2.2. Label elements



Contains Potassium sulphate; K2SO4

Signal word Danger

Hazard statements

H318 - Causes serious eye damage

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

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

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	EC No (EU	Weight-%	Classification	Specific	REACH	M-Factor	M-Factor
	Index No)	•	according to	concentration	registration		(long-term)
			Regulation	limit (SCL)	number		
			(EC) No.				
			1272/2008				
			[CLP]				
Potassium nitrate; KNO ₃	231-818-8	25 - 40%	Ox. Sol. 3 (H272)	-	01-2119488224-	-	-
(7757-79-1)					35-0020		
Potassium sulphate;	231-915-5	10 - 25%	Eye dam. 1	-	01-2119489441-	-	-
K ₂ SO ₄			(H318)		34		
(7778-80-5)							
Iron-EDDHA; Fe-EDDHA	283-044-5	0.3 - 1%	-	-	01-2119487279-	-	-
(84539-55-9)					21		
Boric acid; H ₃ BO ₃	233-139-2	0.1 - 0.3%	Repr. 1B	-	01-2119486683-	-	-
(10043-35-3)	(005-007-00-2)		(H360FD)		25		

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L
Potassium nitrate; KNO ₃	3015	5000	0.527
Potassium sulphate; K ₂ SO ₄	6600	2000	No data available
Iron-EDDHA; Fe-EDDHA	No data available	2000	No data available
Boric acid; H ₃ BO ₃	2660	2000	2.12

This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Chemical name	CAS No.	SVHC candidates
Boric acid; H ₃ BO ₃	10043-35-3	X

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Immediate medical attention is required. Show this safety data sheet to the doctor in

attendance.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur.

Eye contact Get immediate medical attention. Rinse immediately with plenty of water, also under the

eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue

rinsing. Keep eye wide open while rinsing. Do not rub affected area.

Skin contact Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical

attention if irritation develops and persists.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce

vomiting. Call a physician.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

4.2. Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physiciansTreat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Hazardous Combustion Products Thermal decomposition can lead to release of toxic/corrosive gases and vapors.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

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 precautionsAvoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Other information Refer to protective measures listed in Sections 7 and 8.

basements or confined areas.

6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so.

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 cleaning up Take up mechanically, placing in appropriate containers for disposal. Use up product

completely. Packaging material is industrial waste.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with

skin, eyes or clothing. Do not eat, drink or smoke when using this product.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do

not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions KEEP OUT OF REACH OF CHILDREN AND PETS. 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 frost.

Packaging materials Keep in original container, tightly closed in a safe place.

7.3. Specific end use(s)

Specific use(s) Fertilizer.

Exposure scenario Mixture. Not required.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Other Information

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Potassium nitrate; KNO ₃	-	-	-	TWA: 5.0 mg/m ³	-
Potassium sulphate; K ₂ SO ₄	-	-	-	TWA: 10.0 mg/m ³	-
Iron-EDDHA; Fe-EDDHA	-	1	-	-	TWA: 1 mg/m ³ STEL: 2 mg/m ³
Boric acid; H ₃ BO ₃	1	1	TWA: 2 mg/m ³ STEL: 6 mg/m ³	TWA: 5.0 mg/m ³	-
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Boric acid; H ₃ BO ₃	1	TWA: 0.5 mg/m ³	TWA: 10 mg/m ³ Peak: 10 mg/m ³	-	-
Chemical name	Italy MDLPS	Latvia	Lithuania	Luxembourg	Netherlands
Potassium nitrate; KNO ₃	-	TWA: 5 mg/m ³	TWA: 5 mg/m ³	-	-
Potassium sulphate; K ₂ SO ₄	-	TWA: 10 mg/m ³	TWA: 10 mg/m ³	-	-
Boric acid; H₃BO₃	-	TWA: 10 mg/m ³	TWA: 10 mg/m ³	-	-
Chemical name	Norway	Poland	Portugal	Romania	Slovakia
Iron-EDDHA; Fe-EDDHA	TWA: 1 mg/m ³ STEL: 3 mg/m ³	-	-	-	-
Boric acid; H ₃ BO ₃	-	-	TWA: 2 mg/m ³ STEL: 6 mg/m ³	-	-
Chemical name	Slovenia	Spain	Sweden	Switzerland	United Kingdom
Iron-EDDHA; Fe-EDDHA	-	-	-	-	TWA: 1 mg/m ³ STEL: 2 mg/m ³
Boric acid; H ₃ BO ₃	TWA: 0.5 mg/m ³ STEL: 1.0 mg/m ³	TWA: 2 mg/m ³ STEL: 6 mg/m ³	-	TWA: 1.8 mg/m ³ STEL: 1.8 mg/m ³	-

Biological occupational exposure limits

Derived No Effect Level (DNEL)

No information available.

8.2. Exposure controls

Personal protective equipment Wear normal, light working clothing

Eye/face protection Tight sealing safety goggles.

Hand protection Wear suitable gloves.

Skin and body protection Wear suitable protective clothing.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do

not eat, drink or smoke when using this product.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained. Prevent

product from entering drains.

None known

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical stateSolidAppearance:Powder(s)Color:Off-whiteOdor:Fertilizer.

Property Values Remarks • Method

Melting Point/Freezing Point:No data availableNone knownBoiling Point/Range:No data availableNone knownFlammability (solid, gas):No data availableNone knownFlammability Limits in Air:None known

Upper Flammability Limit: Not applicable

Lower Flammability Limit: Not applicable Flash Point: No data available

Autoignition Temperature: No data available None known

Decomposition Temperature: None known

pН No data available None known pH (as aqueous solution) No data available None known **Kinematic Viscosity:** No data available None known **Dynamic Viscosity:** No data available None known No data available Water solubility None known Solubility(ies) No data available None known Partition Coefficient: No data available None known

Vapor Pressure:No data availableNone knownRelative densityNo data availableNone known

Bulk density

Density:

No data available

No data available

Vapour density No data available None known

Particle characteristics

Particle SizeNo data availableParticle Size DistributionNo data available

9.2. Other information Not applicable

9.2.1. Information with regard to physical hazard classes Not applicable

9.2.2. Other safety characteristics

No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Not reactive.

10.2. Chemical stability

Stability Stable under normal conditions.

Specific methods:

Sensitivity to mechanical impact Not sensitive. Sensitivity to static discharge Not sensitive.

10.3. Possibility of hazardous reactions

2043-225HA --- Universol Basis 159; 4-19-35+4.1MgO+TE

Possibility of hazardous reactions
None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

10.6. Hazardous decomposition products

Hazardous Decomposition Products None under normal use conditions. 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 hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Causes serious eye damage.

Skin contact Specific test data for the substance or mixture is not available. May cause irritation.

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause

gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. Burning. May cause blindness.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Potassium nitrate; KNO₃	= 3015 mg/kg (Rat)	> 5000 mg/kg (Rat)	> 0.527 mg/L (Rat) 4 h
Potassium sulphate; K ₂ SO ₄	= 6600 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
Iron-EDDHA; Fe-EDDHA	-	> 2000 mg/kg (Rat)	> 4200 mg/m ³ (Rat) 4 h
Boric acid; H ₃ BO ₃	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2.12 mg/L (Rat)4 h

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure:

Skin corrosion/irritation May cause skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes burns. Risk of serious

damage to eyes.

Respiratory or skin sensitization Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

CarcinogenicityBased on available data, the classification criteria are not met.Reproductive toxicityBased on available data, the classification criteria are not met.

Chemical nameEuropean UnionBoric acid; H₃BO₃Repr. 1B10043-35-3

The table below indicates ingredients above the cut-off threshold considered as relevant

which are listed as reproductive toxins.

STOT - single exposure STOT - repeated exposure Aspiration hazard Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met Based on available data, the classification criteria are not met

Endocrine disrupting properties

Not applicable.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

	Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
				microorganisms	
P	otassium sulphate; K ₂ SO ₄	EC50: =2900mg/L (72h, Desmodesmus subspicatus)	LC50: =653mg/L (96h, Lepomis macrochirus) LC50: =3550mg/L (96h, Lepomis macrochirus) LC50: 510 - 880mg/L (96h, Pimephales promelas)	-	EC50: =890mg/L (48h, Daphnia magna)
I	ron-EDDHA; Fe-EDDHA	-	LC50: >120mg/L (96h, Danio rerio)	-	-
	Boric acid; H₃BO₃	-	-	-	EC50: 115 - 153mg/L (48h, Daphnia magna)

12.2. Persistence and degradability

Persistence and Degradability: No information available.

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
Iron-EDDHA; Fe-EDDHA	-4.2
Boric acid; H ₃ BO ₃	-1.09

12.4. Mobility in soil

Mobility in soil no data available.

Mobility no data available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Potassium nitrate; KNO₃	The substance is not PBT / vPvB
Potassium sulphate; K ₂ SO ₄	The substance is not PBT / vPvB
Iron-EDDHA; Fe-EDDHA	The substance is not PBT / vPvB
Boric acid; H ₃ BO ₃	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

12.7. Other adverse effects

. No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Contaminated packaging Do not reuse empty containers.

uncontaminated, collect and reuse as recommended for product.

SECTION 14: Transport information

IMDG

14.1

UN-No: Not regulated

14.2

Proper shipping name: Not regulated

<u>14.3</u>

Transport hazard class(es)

Not regulated

<u>14.4</u>

Packing group: Not regulated

14.5

Marine Pollutant: Not regulated

14.6

Special Provisions None

Bulk transport according Annex II of MARPOL and IBC Code No data available

ADR

<u>14.1</u>

UN-No: Not regulated

14.2

Proper shipping name: Not regulated

14.3

Transport hazard class(es)

Not regulated

14.4

Not regulated Packing group:

14.5

Environmental hazards Not regulated

14.6

Special Provisions None

IATA

14.1 **UN** number or ID number

Not regulated

14.2 Proper shipping name: Not regulated

14.3

Transport hazard class(es) Not regulated

<u>14.4</u>

Packing group Not regulated

14.5

Environmental hazards 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

National regulations

Denmark France

ICPE Not regulated

Germany

Gefahrstoffverordnung (Germany) TRGS 511 Not regulated

Water hazard class (WGK) non-hazardous to water (nwg)

Chemical name	German WGK Section
Potassium nitrate; KNO₃	Reg. no. 346, hazard class 1 - slightly hazardous to water
Potassium sulphate; K ₂ SO ₄	Reg. no. 255, hazard class 1 - slightly hazardous to water
Iron-EDDHA; Fe-EDDHA	Reg. no. 8485, hazard class 1 - slightly hazardous to water
Boric acid: H ₃ BO ₃	Reg. no. 315, hazard class 1 - slightly hazardous to water

Netherlands

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
Boric acid; H ₃ BO ₃	-	-	Fertility Category 1B
			Development Category 1B

European Union

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

Take note of Directive 94/33/EC on the protection of young people at work

Not to be used by professional users below 18 years of age, see the National Working Environment Authorities Executive Order on young peoples dangerous work.

Authorizations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

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 entry 30. Use restricted. See entry 75.	-

REGULATION (EU) 2019/1148 on the marketing and use of explosives precursors

Chemical name	REGULATION (EU) 2019/1148 on the marketing and	
	use of explosives precursors	
Potassium nitrate; KNO₃	Present	

Not regulated

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

EU - Plant Protection Products (1107/2009/EC)

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
	Product-type 8: Wood preservatives
Boric acid; H ₃ BO ₃	·

International Inventories:

TSCA This product complies with USINV
PICCS: This product does not comply with phil:
Australian Inventory of Chemical This product does not comply with AICS

Substances

Legend:

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report Substance(s) usage is covered according to Reach regulation 1907/2006

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed H315 - Causes skin irritation H318 - Causes serious eye damage

H360FD - May damage fertility. May damage the unborn child

Legend

SVHC: Substances of Very High Concern for Authorization:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value Sk* Skin designation

Classification procedure

· Calculation method

• Expert judgment and weight of evidence determination

Classification procedure		
Classification procedure		
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used	
Acute oral toxicity	Calculation method	
Acute dermal toxicity	Calculation method	
Acute inhalation toxicity - gas	Calculation method	
Acute inhalation toxicity - vapor	Calculation method	
Acute inhalation toxicity - dust/mist	Calculation method	
Skin corrosion/irritation	Calculation method	
Serious eye damage/eye irritation	Calculation method	
Respiratory sensitization	Calculation method	
Skin sensitization	Calculation method	
Mutagenicity	Calculation method	
Carcinogenicity	Calculation method	
Reproductive toxicity	Calculation method	
STOT - single exposure	Calculation method	
STOT - repeated exposure	Calculation method	
Acute aquatic toxicity	Calculation method	
Chronic aquatic toxicity	Calculation method	
Aspiration hazard	Calculation method	
Ozone	Calculation method	

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

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

Last Revision Date 19-Sep-2024

Restrictions on use Restricted to professional users.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 Disclaimer

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End of Safety Data Sheet

Page 13/13