



Safety Data Sheet

Revision Date: 29-Oct-2014

Version: 1.03

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

1.1. Product identifier

Product Name: Universol Orange 16-5-25+3.4MgO+TE
Product Code: 20420225EA

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

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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 Ammonium Nitrate; NH_4NO_3 , Potassium sulphate; K_2SO_4

Precautionary Statements - EU (§28, 1272/2008)

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

P210 - Keep away from heat/sparks/open flames/hot surfaces. — No smoking

P221 - Take any precaution to avoid mixing with combustibles

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
Ammonium Nitrate; NH_4NO_3	229-347-8	6484-52-2	25 - 40%	O;R8 Xi;R36	Eye Irrit. 2 (H319) Ox. Sol. 3 (H272)	01-2119490981-27
Potassium sulphate; K_2SO_4	231-915-5	7778-80-5	5 - 10%	Xi;R41	Eye Dam. 1 (H318)	01-2119489441-34
Ureaphosphate	225-464-3	4861-19-2	1 - 5%	C;R34	Skin Corr. 1B (H314)	01-2119489460-34
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; H_3BO_3	233-139-2	10043-35-3	< 0.1%	Repr.Cat.2;R60-6 1	Repr. 1B (H360FD)	01-2119486683-25
Sodium molybdate; $Na_2MoO_4+2H_2O$	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:	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 vomiting. 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:

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. 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.

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

<i>Ammonium Nitrate; NH4NO3</i>	
Czech Republic OEL	10.0 mg/m ³ TWA
<i>Potassium sulphate; K2SO4</i>	
Latvia - Occupational Exposure Limits - TWAs	10 mg/m ³ TWA
Bulgaria - Occupational Exposure Limits - TWAs	10.0 mg/m ³ TWA
<i>Iron EDTA; Fe-EDTA</i>	
Spain Occupational Exposure Limits Data - Time Weighted Average (TWA):	TWA: 1 mg/m ³
Portugal	TWA: 1 mg/m ³
Finland	TWA: 1 mg/m ³
Denmark	TWA: 1 mg/m ³
Switzerland	TWA: 1 mg/m ³
<i>Manganese-EDTA, Mn-EDTA</i>	
Czech Republic OEL	1 mg/m ³ TWA
Ireland	TWA: 0.2 mg/m ³
<i>Copper-EDTA; Cu-EDTA</i>	
Finland	TWA: 1 mg/m ³
Austria	STEL 4 mg/m ³ STEL 0.4 mg/m ³ TWA: 1 mg/m ³ TWA: 0.1 mg/m ³
<i>Boric Acid; H3BO3</i>	
Latvia - Occupational Exposure Limits - TWAs	10 mg/m ³ TWA
Bulgaria - Occupational Exposure Limits - TWAs	5.0 mg/m ³ TWA (as B, listed under Boron and its inorganic compounds)
Spain Occupational Exposure Limits Data - Time Weighted Average (TWA):	STEL: 6 mg/m ³ TWA: 2 mg/m ³
Portugal	STEL: 6 mg/m ³ TWA: 2 mg/m ³
Portugal - TWAs	2 mg/m ³ TWA
Switzerland	STEL: 10 mg/m ³ TWA: 10 mg/m ³

<i>Sodium molybdate; Na₂MoO₄·2H₂O</i>	
UK oes/mel:	TWA: 5 mg/m ³
France - Occupational Exposure Limits - 8 Hour VMEs	TWA: 5 mg/m ³ STEL: 10 mg/m ³
Czech Republic OEL	5 mg/m ³ TWA
Spain Occupational Exposure Limits Data - Time Weighted Average (TWA):	TWA: 0.5 mg/m ³
Portugal	TWA: 0.5 mg/m ³
Finland - Occupational Exposure Limits - 8 hour	6 mg/m ³
Finland	TWA: 0.5 mg/m ³
Denmark	TWA: 5 mg/m ³
Austria	STEL 10 mg/m ³ TWA: 5 mg/m ³
Switzerland	TWA: 5 mg/m ³
Poland	STEL: 10 mg/m ³ TWA: 4 mg/m ³
Norway	TWA: 5 mg/m ³ STEL: 10 mg/m ³
Ireland	TWA: 10 mg/m ³ TWA: 0.5 mg/m ³
France - Valeurs Limites d'exposition (VLE)	5 mg/m ³

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:	powder
Color:	Off-white.
Odor:	Not significant
pH:	4 - 5 (200 g/l) 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: 800 - 1100 kg/m³

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

Strong oxidizing agents. Acids and bases. Strong reducing agents. Flammable 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.

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): 73,122.00 mg/kg

Component Information:

Ingredients	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium Nitrate; NH ₄ NO ₃	= 2217 mg/kg (Rat)		> 88.8 mg/L (Rat) 4 h
Potassium sulphate; K ₂ SO ₄	= 6600 mg/kg (Rat)		
Ureaphosphate	2600 mg/kg		
Boric Acid; H ₃ BO ₃	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 0.16 mg/L (Rat) 4 h
Sodium molybdate; Na ₂ MoO ₄ +2H ₂ O	= 4233 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 2080 mg/m ³ (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
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Boric Acid; H3BO3	Reproductive Toxicity - Repr. 1B: H360FD May damage fertility. May damage the unborn child. (C >= 5.5 %)
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Teratogenicity
STOT - Single Exposure
STOT - Repeated Exposure
Aspiration Hazard

No data available.
 No known effects under normal use conditions.
 None under normal use conditions.
 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
Potassium sulphate; K2SO4	2900: 72 h Desmodesmus subspicatus mg/L EC50	3550: 96 h Lepomis macrochirus mg/L LC50 static 510 - 880: 96 h Pimephales promelas mg/L LC50 static 653: 96 h Lepomis macrochirus mg/L LC50	890: 48 h Daphnia magna mg/L EC50
Boric Acid; H3BO3			115 - 153: 48 h Daphnia magna mg/L EC50

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

Ingredients	LOGPOW
Ammonium Nitrate; NH4NO3	-3.1
Boric Acid; H3BO3	-0.757

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

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)

14.3
Hazard Class: 5.1

14.4

Packing group: 14.5	III
Marine Pollutant: 14.6	Not regulated
EmS: 14.7	F-A / S-Q
Special Provisions	223, 274, 900
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)
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)
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 (25 - 40%)	Use restricted. See item 58. (Conditions of restrictions 27 June 2010)

National regulations

France

ICPE (FR):

Classified installation: article 1331 (Type III), 1230

Germany

Gefahrstoffverordnung (Germany) TRGS 511

LGK (Germany)

Water Endangering Class (WGK):

C III

5.1B

1 (Everris classification)

Component	German WGK Section
Ammonium Nitrate; NH ₄ NO ₃ 6484-52-2 (25 - 40%)	class 1
Potassium sulphate; K ₂ SO ₄ 7778-80-5 (5 - 10%)	class 1
Ureaphosphate 4861-19-2 (1 - 5%)	class 1
Iron EDTA; Fe-EDTA 15708-41-5 (0.1 - 1%)	class 2
Boric Acid; H ₃ BO ₃ 10043-35-3 (< 0.1%)	class 1
Sodium molybdate; Na ₂ MoO ₄ ·2H ₂ O 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

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

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

H319 - Causes serious eye irritation

H272 - May intensify fire; oxidizer

H318 - Causes serious eye damage

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)
Revision Date:	29-Oct-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

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End of Safety Data Sheet