

Sentinel

Section 1: Identification of the substance/preparation and of the company/undertaking

1.1 Product identifier

Product Name: **Sentinel**
Supplier: Engage Agro Europe Ltd
Chorley Business & Technology Centre
Euxton Lane,
Euxton, Chorley
Lancashire PR7 6TE
England
Telephone: +44 (0) 1257 226590



1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use: Fertiliser. For professional use only.
Uses advised against: All uses not specified in this section or in section 7.3.

1.3 Emergency telephone

Emergency Telephone	Type of Assistance	Opening Hours
0845 4647	England and Wales: NHS Direct – Health advice and assistance	24 Hours
08454 242424	Scotland: NHS24	24 Hours

Section 2: Hazards identification

2.1 Classification of the Substance and Mixture

CLP Regulation (EC) n°1272/2008: Classification of this product has been carried out in accordance with CLP Regulation (EC) N° 1272/2008.
Flam. Liq. 3: H226
Acute Tox. 4: H302
Skin Irrit. 2: H315
Eye Dam. 1: H318
Acute Tox. 4: H332

2.2 Label elements

Hazard Statements: Flam. Liq. 3: H226 - Flammable liquid and vapour
Acute Tox. 4: H302 - Harmful if swallowed
Skin Irrit. 2: H315 - Causes skin irritation
Eye Dam. 1: H318 - Causes serious eye damage
Acute Tox. 4: H332 - Harmful if inhaled

Hazard Pictograms:



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Signal Words:	Danger
Precautionary Statement:	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Prevention	P233 - Keep container tightly closed P240 - Ground/Bund container and receiving equipment P241 - Use explosion-proof electrical/ventilating/lighting equipment P242 - Use only non-sparking tools P243 - Take precautionary measures against static discharge P261 - Avoid breathing dust/fume/gas/mist/vapour/spray P264 - Wash thoroughly after handling P270 - Do not eat, drink or smoke when using this product P271 - Use only outdoors in a well ventilated area P280 - Wear Protective gloves/protective clothing/eye protection/face protection
Precautionary Statement:	P301+P312 - IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell
Response	P302+P352 - IF ON SKIN: Wash with plenty of water P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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 CENTRE/doctor if you feel unwell. P321 - Specific treatment (see % on this label). P330 - Rinse Mouth P332+P313 - If skin irritation occurs: Get medical advice/attention
Precautionary Statement:	P403+P235 - Store in a well-ventilated place. Keep cool.
Storage	
Precautionary Statement:	
Disposal	P501 - Dispose of contents/container to an approved waste contractor.

2.3 Other Hazards

Other Hazards	PBT not identified as a PBT substance
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Section 3: Composition/information on ingredients

3.1 Mixtures

In accordance with Annex II of Regulation (EC) n°1907/2006

Identification	Chemical name/Classification		Concentration
CAS: 78-10-4 EC: 201-083-8 Index: 014-005-00-0 REACH: 01-2119496195-28	Tetraethyl silicate (Tetraethylacetate)		10-20%
	Regulation 1272/2008	Regulation 67/548/EEC / 1999/45/EC	
	Flam. Liq. 3: H226, Eye Irrit. 2: H319, Acute Tox. 4: H332, STOT SE 3: H332		
CAS: 134180-76-0 EC: Non-applicable Index: Non-applicable REACH: Non-applicable	Polyether modified polysiloxane		1-10%
	Regulation 1272/2008	Regulation 67/548/EEC / 1999/45/EC	
	Acute Tox. 4: H312+H332, Eye Irrit. 2: H319, Aquatic Chronic 2: H411	Xn; R20/21 Xi; R38-41 N; R51/53	
CAS: 68131-40-8 EC: Non applicable Index: Non-applicable REACH: Non-applicable	Alkyloxypolyethyleneoxyethanol		30-40%
	Regulation 1272/2008	Regulation 67/548/EEC / 1999/45/EC	
	Acute Tox. 4: H302, Skin Irrit. 2: H315, Eye Dam. 1: H318, Acute Tox. 4: H332	Xn; R22 Xi; R41	
CAS: 90-02-8 EC: 201-961-0 Index: Non-applicable REACH: 01-2119931635-36	Salicylaldehyde		40-50%
	Regulation 1272/2008	Regulation 67/548/EEC / 1999/45/EC	
	Acute Tox. 4: H302	Xn; R22	

Further Information:
 Product Shelf Life

Recommended shelf life 3 years from date of delivery.

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Section 4: First aid measures

4.1 Description of first aid measures

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention.

By inhalation: Move the exposed person to fresh air.
By skin contact: Remove contaminated clothing. Wash with water and soap as a precaution.
By eye contact: Rinse immediately with plenty of water. Contact lenses should be removed.
By Ingestion: DO NOT INDUCE VOMITING. Rinse mouth thoroughly.

4.2 Most Important symptoms and effects, both acute and delayed:

By Inhalation: High concentration of vapour in enclosed space may cause irritation, headaches and nausea. Harmful by inhalation.
By Skin Contact: May cause skin dryness and irritation. Prolonged contact may cause defatting of the skin. Harmful in contact with skin.
By Eye contact: Harmful. Causes serious eye damage.
By Ingestion: May cause irritation to mucous membranes. Harmful if swallowed.

4.3 Indication of any immediate medical attention and special treatment needed

TREAT SYMPTOMATICALLY. If you feel unwell, seek medical advice. Show the label where possible. Show this safety data sheet to the doctor in attendance.

By inhalation: Move the exposed person to fresh air. Seek medical attention if irritation or symptoms persist. Show this safety data sheet to the doctor in attendance.
By Skin Contact: Seek medical attention if irritation or symptoms persist.
By Eye Contact: Contact lenses should be removed. Rinse immediately with plenty of water. Seek medical attention if irritation or symptoms persist.
By Ingestion: Drink 1-2 glasses of water. Seek medical advice if irritation or symptoms persist

Section 5: Fire-fighting measures

5.1 Extinguishing media

Extinguishing media: Flammable liquid. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

Exposure hazards: Burning produces irritating, toxic and obnoxious fumes.

5.3 Advice for firefighters

Advice for fire-fighters: Wear suitable respiratory equipment when necessary.
Additional provisions: In the event of a fire and/or explosion do not breath fumes. Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Wear suitable protective equipment. Flammable liquid. Avoid Sparks, flames, heat and sources of ignition.

6.2 Environmental precautions

Environmental precautions: Advise local authorities if large spills cannot be contained.

6.3 Methods and material for containment and cleaning up

Clean-up procedures: Absorb with inert, absorbent material. Sweep up. Transfer to suitable, labelled containers for disposal. Avoid sparks, flames, heat and sources of ignition.

6.4 Reference to other sections

Reference to other sections: See section 2, 7, 8 and 13 for further information.

Section 7: Handling and storage

7.1 Precautions for safe handling

Precautions for safe handling: Adopt best manual handling considerations when handling, carrying and dispensing.

7.2 Conditions for safe storage, including any incompatibilities

General conditions for storage: Flammable liquid. Avoid sparks, flames, heat and sources of ignition. Avoid storing in direct sunlight. Store in a well ventilated place. Keep cool. Store in original container. Keep container tightly closed. Keep away from combustible material. Keep out of the reach of children.

7.3 Specific end use(s)

Specific end use(s): No data is available for this product.

Section 8: Exposure controls/personal protection

8.1 Control Parameters

Substances whose occupational exposure limits have to be monitored in the work environment. There are no environmental limits for the substances contained in the product.

DNEL (Workers): Non-applicable
DNEL (General population): Non-applicable
PNEC: Non-applicable

8.2 Exposure controls



A - General security and hygiene measures in the work place

Adopt best Manual Handling considerations when handling, carrying and dispensing. Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice. Use appropriate personal protective equipment. Wear suitable protective clothing and eye/face protection.

B - Specific Respiratory Protection

No personal respiratory protective equipment normally required. In case of insufficient ventilation wear suitable respiratory equipment.

C - Specific protection for the hands

Wear Rubber gloves.

D - Ocular and facial protection

Avoid contact with eyes. If splashes are likely to occur wear safety glasses with side shields.

E - Bodily protection

Wear suitable protective clothing.

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. Prevent further leakage or spillage if safe to do so

Volatile organic compounds

Non-applicable

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Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Liquid
Colour:	Clear
Odour:	Characteristic
pH:	No data available
Melting point:	No data available
Initial boiling point:	No data available
Flash point:	44.5°C
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	No data available
Partition coefficient:	No data available
Autoignition coefficient:	No data available
Viscosity:	< 50 centipoise
Explosive properties:	No data available
Oxidising properties:	No data available
Solubility:	No data available

9.2 Other Information

Conductivity:	No data available
Surface tension:	No data available
Specific gravity	1.07 - 1.08 g/cm ³
Gas group:	No data available
Benzene content:	No data available
Lead content:	No data available
VOC (Volatile organic compounds)	No data available

Section 10: Stability and reactivity

10.1 Reactivity

Reactivity: Flammable liquid. Stable under normal conditions.

10.2 Chemical stability

Chemical stability: Flammable liquid. Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions: Oxidising agents. Combustible materials.

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10.4 Conditions to avoid

Conditions to avoid: Avoid sparks, flames, heat and sources of ignition. Avoid storing in direct sunlight.

10.5 Incompatible materials

Incompatible materials: Oxidising agents

10.6 Hazardous decomposition products

Haz. Decomposition Products: No hazardous decomposition products when stored and handled correctly. Burning produces irritating, toxic and obnoxious fumes.

Section 11: Toxicological information

11.1 Information on toxicological effects

Skin corrosion/irritation: Not anticipated under normal conditions of use. May cause irritation to skin.
Serious eye damage/irritation: Not anticipated under normal conditions of use. Causes serious eye damage.
Respiratory or skin sensitisation: Not anticipated under normal conditions of use. May cause irritation to respiratory system.
Repeated or prolonged exposure: Prolonged contact may cause defatting of the skin

11.2 Specific toxicology information on the substances

No data available

Section 12: Ecological information

12.1 Toxicity

No data available

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12.2 Persistence and degradability

Substance biodegrades at a moderate rate and inherently biodegradable according to the OECD guidelines.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

None described

Section 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment methods: Dispose of waste and residues in accordance with local authority requirements.

Disposal of packaging: Do not reuse empty containers. Dispose of empty container in compliance with local and national regulations.

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Section 14: Transport information



Transport of dangerous goods by land With regard to ADR 2015 and RID 2015:	Transport of dangerous goods by sea With regard to IMDG 37-14
14.1 - UN number: UN1993	14.1 - UN number: UN1993
14.2 - UN proper shipping name: FLAMMABLE LIQUID N.O.S. (contains Tetraethyl silicate solution)	14.2 - UN proper shipping name: FLAMMABLE LIQUID N.O.S. (contains Tetraethyl silicate solution)
14.3 - Transport hazard class(es): ADR/RID:3 Labels: 3	14.3 - Transport hazard class(es): IMDG: 3 Labels: Non-applicable
14.4 - Packing group III	14.4 - Packing group III
14.5 - Dangerous for the env.: No	14.5 - Dangerous for the env.: No
14.6 - Special precautions for user Special regulations: Hazard ID 30 Tunnel restriction code: Category D/E Physico-Chemical properties: See section 9 Limited Quantities: Non-applicable	14.6 - Special precautions for user: Special regulations: Non-applicable EmS codes: F-E-S-E Physico-chemical properties: See section 9 Limited quantities: Non-applicable
14.7 - Transport in bulk according to Annex II of Marpol and IBC Code: Non-applicable	14.7 - Transport in bulk according to Annex II of Marpol and IBC code: Non-applicable

Transport of dangerous goods by air
With regard to IATA/ICAO 2015:

14.1 - UN number: UN1993
14.2 - UN proper shipping name: FLAMMABLE LIQUID N.O.S. (contains Tetraethyl silicate solution)
14.3 - Transport hazard class(es): Non-applicable Labels: Non-applicable
14.4 - Packing group III
14.5 - Dangerous for the environment: No
14.6 - Special precautions for user Physico-Chemical properties: See section 9
14.7 - Transport in bulk according to Annex II of Marpol and IBC Code: Non-applicable Packing instruction (Cargo): 366 Maximum quantity: 220 L Packing instruction (Passenger) 355 Maximum quantity: 60 L

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Specific regulations:

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

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Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH):

Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product

Other legislation:

The product could be affected by sectorial legislation

Regulation (EC) No 2003/2003 of the European Parliament and of the Council of 13 October 2003 relating to fertilisers

15.2 Chemical Safety Assessment

Chemical safety assessment: No data available

Section 16 Other information

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Annex II-Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/2006 (Regulation (EU) N° 453/2010, Regulation (EC) N° 2015/830)

Modifications related to the previous security card which concerns the ways of managing risks:

Non-applicable

Texts of the legislative phrases mentioned in section 2:

H226 - Flammable liquid and vapour

H319 - Causes serious eye irritation

H332 - Harmful if inhaled

H335 - May cause respiratory irritation

H312+H332 - Harmful in contact with skin or if inhaled

H411 - Toxic to aquatic life with long lasting effects

H302- Harmful if swallowed

H302+H322 - Harmful if swallowed or inhaled

H315 - Causes skin irritation

H318 - Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3.

CLP Regulation (EC) n° 1272/2008:

Flam. Liq. 3: H226 Flammable liquid and vapour

Eye Irrit. 2: H319 Causes serious eye irritation

Acute Tox. 4: H332 Harmful if inhaled

STOT SE 3: H335 May cause respiratory irritation

Acute Tox.4: H312+H332 Harmful in contact with skin or if inhaled

Aquatic Chronic 2.: H411 Toxic to aquatic life with long lasting effects

Acute tox. 4: H302+H332 Harmful if swallowed or inhaled

Skin Irrit. 2: H315 Causes skin irritation

Eye Dam. 1: H318 Causes serious eye damage

Legal disclaimer:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

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Engage Agro Europe Ltd

Chorley Business & Technology Centre | Euxton Lane | Euxton | Chorley | Lancashire PR7 6TE

T: +44 (0) 1257226590

E: info@engage-agro.com

www.engageagroeuropa.com