SAFETY DATA SHEET
SYMBIO LIQUID TRACE ELEMENTS

SDS COMPLETED 11TH JANUARY 2018 **VERSION 01**
REVIEW DATE 9 JUNE 2021 **REVISION NUMBER: 01**

1. Identification of the Substance and the Company

1.1. Product identifier

Product name: SYMBIO LIQUID TRACE ELEMENTS

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

1.3. Details of the supplier of the safety data sheet

Company name:
Origin Amenity Solutions Ltd
1-3 Freeman Court,
Jarman Way,
Orchard Road,
Royston,
Hertfordshire,
SG8 5HW
Tel: 0800 138 7222
Email: sales.symbio@originamenity.com

1.4 Emergency Telephone No. :

Emergency phone No.	0800 138 7222 (09.00 – 17.00 GMT Monday – Friday)
National emergency telephone number	111

2. Hazards Identification

2.1. Classification of the substance or mixture Classification

Classification under CLP: Aquatic Chronic 2: H411; Eye Dam. 1: H318
Most important adverse effects: Causes serious eye damage.
Toxic to aquatic life with long lasting effects.

2.2. Label elements

Label elements:

Hazard statements: H318: Causes serious eye damage.
H411: Toxic to aquatic life with long lasting effects.

Hazard pictograms: GHS05: Corrosion*
GHS09: Environmental

Signal words: Danger*

Precautionary statements: P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P391: Collect spillage.

P501: Dispose of contents / container to hazardous or special waste collection point, in accordance with local, regional, national and /or international regulation

2.3 Other Hazards

Mixture not classified as PBT or vPvB

3. COMPOSITION OF INGREDIENTS*

3.2 Mixtures

Hazardous ingredients:

MANGANESE SULPHATE MONOHYDRATE

EINECS	CAS	PBT / WEL	CLP Classification	Percent
232-089-9	10034-96-5	-	Eye Dam. 1: H318; STOT RE 2: H373; Aquatic Chronic 2: H411	5-6%

SOLUBLE BORON 21% - REACH registered number(s): 01-2119490860-33-XXXX

234-541-0	12280-03-4	-	Repr. 1B: H360FD	2-3%

ZINC SULPHATE MONOHYDRATE

231-793-3	7446-19-7	-	Acute Tox. 4: H302; Eye Dam. 1: H318; Aquatic Chronic 1: H410	1-2%

COPPER SULPHATE PENTAHYDRATE - REACH registered number(s): 01-2119520566-40

231-847-6	7758-99-8	-	Acute Tox. 4: H302; Eye Dam. 1: H318; Aquatic Chronic 1: H410; Aquatic Acute 1: H400	1-2%

4. First Aid Measures

4.1 Any special measures:

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Wash out mouth with water. Consult a doctor.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

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

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Eye bathing equipment should be available on the premises.

5. Fire Fighting Measures

5.1 Suitable extinguishing media:

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed. The floor of the storage room must be impermeable to prevent the escape of liquids.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): PC12: Fertilisers.

Section 8: Exposure controls/personal protection

8.1 Control parameters

DNEL/PNEC Values

Hazardous ingredients:

MANGANESE SULPHATE

Type	Exposure	Value	Population	Effect
DNEL	Dermal	4.14ug/kg/day	Workers	Local
DNEL	Inhalation	0.2mg/m3	Workers	Local
DNEL	Dermal	2.1ug/kg/day	Consumers	Local
DNEL	Inhalation	0.043mg/m3	Consumers	Local
PNEC	Fresh water	0.0128mg/l	General population	Local
PNEC	Marine water	0.4ug/l	General population	Local
PNEC	Fresh water sediments	11.4ug/kg	General population	Local
PNEC	Marine sediments	1.4ug/kg	General population	Local
PNEC	Soil (agricultural)	25.1mg/kg	General population	Local
PNEC	Microorganisms in sewage treatment	56mg/l	General population	Local

ZINC SULPHATE MONOHYDRATE

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	1mg/m3	Workers	Systemic
DNEL	Dermal	8.3mg/kg/day	Workers	Systemic
DNEL	Oral	0.83mg/kg/day	General Population	Systemic
DNEL	Inhalation	1.3mg/m3	General Population	Systemic
DNEL	Dermal	8.3mg/kg/day	General Population	Systemic
PNEC	Fresh water	0.0206mg/l	-	-
PNEC	Marine water	0.0061mg/l	-	-
PNEC	Fresh water sediments	235.6mg/kg	-	-
PNEC	Marine sediments	113mg/kg	-	-
PNEC	Soil (agricultural)	106.8mg/kg	-	-
PNEC	Microorganisms in sewage treatment	0.0052mg/l	-	-

8.2 Exposure Controls

Engineering measures: Ensure there is sufficient ventilation of the area. The floor of the storage room must be impermeable to prevent the escape of liquids.
Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.
Hand protection: Protective gloves.
Eye protection: Safety glasses. Ensure eye bath is to hand.
Skin protection: Protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid
Colour: Red-brown
Evaporation rate: No data available.
Oxidising: No data available.
Solubility in water: No data available.
Viscosity: No data available.
Boiling point/range°C: No data available.
Melting point/range°C: No data available.

Flammability limits %:	
lower:	No data available.
upper:	No data available.
Flash point°C:	No data available.
Part.coeff. n-octanol/water:	No data available.
Autoflammability°C:	No data available
Vapour pressure:	No data available.
Relative density:	1.20-1.25
pH:	5.0-7.0
VOC g/l:	No data available.

9.2. Other Information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

SOLUBLE BORON 21%

DERMAL	RAT	LD50	>2000	mg/kg
ORAL	RAT	LD50	>2000	mg/kg

ZINC SULPHATE MONOHYDRATE

DERMAL	RAT	LD50	>2000	mg/kg
ORAL	RAT	LD50	>2000	mg/kg

COPPER SULPHATE PENTAHYDRATE

DERMAL	RAT	LD50	>2000	mg/kg
ORAL	RAT	LD50	480	mg/kg

Relevant hazards for product:

Hazard	Route	Basis
Serious eye damage/irritation	OPT	Hazardous: calculated

11.2 Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact.
Eye contact: There may be irritation and redness. The eyes may water profusely.
Ingestion: There may be soreness and redness of the mouth and throat.
Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.
Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity Values: No data avialable

12.2. Persistence and degradability

Persistence and degradability: Not biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: Bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Toxic to aquatic organisms. Toxic to soil organisms.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Dispose of waste and residues in accordance with local authority requirements.
Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

Recovery operations: Dispose of in compliance with all local and national requirements.

Disposal of packaging: Empty containers should be taken care of as hazardous waste according to local and national provisions.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: UN3082

14.2. UN proper shipping name

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es)

Transport class: 9

14.4. Packing group

Packing group: III

14.5. Environmental hazards

Environmentally hazardous: Yes **Marine pollutant:** Yes

14.6. Special precautions for user

Special Precautions: **No special precautions.**
Tunnel code: E
Transport category: 3

Section 15: Regulatory information

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

Specific regulations: Classified and labelled in accordance with regulation 1999/45/EC, 1272/2008, the statutory instrument No.716 2009 Chemicals (Hazard Information and Packaging) regulations and the EC fertiliser Regulations 2003, Regulation (EC) No 1907/2006.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Disclaimer

The information in this SDS was obtained from sources which we believe to be reliable. Symbio provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate handling of the product by properly trained and qualified personnel. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830

Revisions: * indicates text in SDs which has changed since previous version. This version supersedes all previous versions
Section 2: change in formulation, resulting in change of:
Hazard pictogram: corrosion
Signal word Danger
Section 3: Change in formulation
Minor editorial changes throughout

Hazard statements:
H302: Harmful if swallowed.
H318: Causes serious eye damage.
H360FD: May damage fertility. May damage the unborn child.
H373: May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
H410: Very toxic to aquatic life with long lasting effects.
H411: Toxic to aquatic life with long lasting effects.

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.