

SDS COMPLETED 8<sup>TH</sup> JUNE 2015  
REVIEWED 5<sup>TH</sup> MARCH 2021

VERSION 01  
REVISION NUMBER: 02

## 1. Identification of the substance/mixture and of the company/undertaking

### 1.1 Product Identifier:

Symbio Liquid Manganese

### 1.2 Relevant uses of the substance or mixture and uses advised against:

Supplied for use as a professional use fertiliser

### 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 phone number

**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 according to Directive EC 1272/2008 Classification, Labelling and Packaging

**Skin Sens 1:** H317 May cause an allergic skin reaction

**Eye Dam. 1;** H318 Causes serious eye damage.

**STOT RE 2;** H373 May cause damage to organs through prolonged or repeated exposure.

**Aquatic Chr. 3;** H412 Harmful to aquatic life with long lasting effects

### 2.1 Label Elements

**Symbio Liquid Manganese**

(contains: Manganese sulphate E.C. 232-089-9)



**Signal word: Danger**

### Hazard Statements:

H317 May cause an allergic skin reaction

H318 Causes serious eye damage.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

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**Precautionary Statements**

P260 Do not breathe mist/vapours/spray.  
P280 Wear protective gloves/eye protection.  
P302+P352: IF ON SKIN: Wash with plenty of water  
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.  
P362+P364: Take off contaminated clothing and wash before reuse

**2.3 Other Hazards**

Mixture not classed as PBT or vPvB

**3. Composition/information on ingredients**

**3.2 Mixtures**

**Hazardous ingredients :**

Chemical Name	CAS	PBT / WEL	CLP Classification	Concentration
Manganese sulphate monohydrate	10034-96-5		Eye Dam 1: H318; STOT RE 2: H373; Aquatic Chronic 2: H411	14-17%
Acticide	55965-84-9		Skin Corr. 1B: H314; Eye Dam 1: H318; Aquatic Acute 1: H400; Aquatic Chronic 2: H411; Skin Sens 1: H317	0.1-0.4%

**4. First Aid Measures**

**4.1 Description of first aid measures**

**Skin contact:** Wash immediately with plenty of soap and water.  
**Eye contact:** Bathe the eye with running water for 15 minutes.  
**Ingestion:** Wash out mouth with water.  
**Inhalation:** Consult a doctor

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

**Skin contact:** There may be mild irritation at the site of contact.  
**Eye contact:** There may be irritation and redness.  
**Ingestion:** There may be irritation of the throat.  
**Inhalation:** May cause irritation to the respiratory system.

Delayed / immediate effects: No data available.

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

Not Applicable

**5. Fire-Fighting measures**

**5.1 Extinguishing media**

Suitable extinguishing media for surrounding materials.

**5.2 Special Hazards arising from the substance or mixture**

In combustion emits toxic fumes

**5.3 Advice for fire-fighters**

Wear complete protective clothing to prevent contact with skin and eyes. Wear self-contained breathing apparatus

**6. Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Wear suitable protective equipment. Keep unprotected persons away. Keep away from children. Refer to section 8 of SDS for personal protection details.

**6.2 Environmental Precautions**

Do not allow to enter storm drains or water courses. Contain spillage using bunding

**6.3 Methods and material for containment and cleaning up**

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**

Refer to section 8 of SDS

**7. Handling and storage**

**7.1 Precaution for safe handling**

Avoid contact with skin and eyes. Wash Hands thoroughly after handling  
Do not eat, drink or smoke when using this product. Remove contaminated clothing and protective equipment before entering eating areas.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in a cool, well ventilated area, in original labelled containers. Keep container tightly closed. Keep away from children.

**7.3 Specific end use(s)**

PC12: Fertiliser

**8. Exposure controls/personal protection**

**8.1 Control Parameters**

Workplace exposure Limits: No data available:

**DNEL/PNEC VALUES**

**Manganese Sulphate Monohydrate**

**DNEL**

Worker	Dermal	Long Term	4.14 µg/Kg/day
Worker	Inhalation.	Long Term	0.2 mg/m <sup>3</sup>
Consumer	Dermal	Long Term	2.1 µg/Kg/day
Consumer	Inhalation.	Long Term	0.043 mg/m <sup>3</sup>

**PNEC**

Freshwater	0.0128 mg/l
Marinewater	0.4 µg/l
Spills(freshwater)	30 µg/l
Sediment (Freshwater)	11.4 µg/kg
Sediment (Marinewater)	1.4 µg/kg
Soil	25.1 mg/kg
STP	56 mg/l

Soil & sediment PNEC values are mg/kg wet weight.

**8.2 Exposure controls**

<b>Engineering measures:</b>	Ensure all engineering measures mentioned in section 7 of SDS are in place.
<b>Respiratory protection:</b>	Respiratory protection not required.
<b>Hand protection:</b>	Protective gloves.
<b>Eye protection:</b>	Safety glasses. Safety goggles. Ensure eye bath is to hand.
<b>Skin protection:</b>	Protective clothing.
<b>Environmental:</b>	Not applicable.

**9. Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

<b>Appearance;</b>	Brown liquid
<b>Odour;</b>	Information not specified
<b>Odour threshold;</b>	Information not specified
<b>pH;</b>	4.5 – 6.0
<b>Melting point/freezing;</b>	Information not specified
<b>Initial boiling point and boiling range</b>	Information not specified
<b>Flash point;</b>	Information not specified
<b>Evaporation rate;</b>	Information not specified
<b>Flammability (solid, gas);</b>	Information not specified
<b>Upper /lower flammability or explosive limits;</b>	Information not specified
<b>Vapour Pressure;</b>	Information not specified
<b>Vapour density;</b>	Information not specified
<b>Specific gravity;</b>	1.17 – 1.22
<b>Solubility (ies);</b>	Information not specified
<b>Partition coefficient: n-octanol/water;</b>	Information not specified
<b>Auto ignition temperature:</b>	Information not specified
<b>Decomposition temperature:</b>	Information not specified

**9.2 Other Information**

No other relevant information available

**10. Stability and reactivity**

**10.1 Reactivity**

Stable under recommended transport or storage conditions

**10.2 Chemical Stability**

Stable under normal conditions

**10.3 Possibility of 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**

Heat

**10.5 Incompatible materials**

Strong oxidising agents. Strong acids

**10.6 Hazardous decomposition products**

In combustion emits toxic fumes

**11. Toxicological Information**

**11.1 Information on toxicological effects**

**Hazardous Ingredients:**

**Acticide FI(N)**

DERMAL	GPG	LD50	>5000 mg/kg
ORAL	GPG	LD50	>5000 mg/kg
VAPOURS	GPG	LD50	>5 mg/l

**Relevant Hazards for product:**

HAZARD	ROUTE	BASIS
Serious eye damage / irritation	OPT	Hazardous: calculated
Respiratory/skin sensitisation	DRM	Hazardous: calculated
STOT- repeated exposure		Hazardous: calculated

**SYMPTOMS /ROUTES OF EXPOSURE**

Skin contact: There may be mild irritation at the site of contact.  
Eye contact: There may be irritation and redness.  
Ingestion: There may be irritation of the throat.  
Inhalation: May cause irritation to the respiratory system.  
Delayed / immediate effects: No data available.  
Other information: Not applicable

**12. Ecological Information**

**12.1 Toxicity**

**Hazardous ingredients:**

**ACTICIDE FI(N)**

Algae	72H EC50	48 mg/l
Daphnia	48H EC50	0.1 mg/l
Marine algae ( <i>Skeletonema costatum</i> )	48H EC50	0.0052 mg/l

**12.2 Persistence and degradability**

Readily biodegradable

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### 12.3 Bioaccumulative potential

No bioaccumulation potential

### 12.4 Mobility in soil

Readily absorbed into soil

### 12.5 Results of PBT and vPvB

Not classified

### 12.6 Other adverse effects

Information not available

## 13. Disposal considerations

### 13.1 Waste Treatment Methods

**Disposal operations:** Dispose of waste and residues in accordance with local authority requirements.

**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.

## 14. Transport Information

Product is unclassified for transport

## 15. Regulatory information

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

This substance is 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

CSA not undertaken for this substance

## 16. Other Information

### Disclaimer

The information in this SDS was obtained from sources which we believe to be reliable. Origin Amenity Solutions 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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