



SAFETY DATA SHEET SYMBIO DEFENDER

SDS COMPLETED 25TH OCTOBER 2017

VERSION 01
REVISION NUMBER: N/A

1. Identification of the Substance and the Company

1.1. Product identifier

Product name: SYMBIO DEFENDER

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:

Eco Solutions (C&R) Ltd T/a Symbio
Unit 8
Coopers Place
Combe Lane
Wormley
Surrey
GU8 5SZ

Tel: +44 (0) 1428 685762

Fax: +44 (0)1428 685702

Email: info@symbio.co.uk

1.4 Emergency Telephone No. :

Emergency telephone +44 (0) 1428 685762

2. Hazards Identification

2.1. Classification of the substance or mixture Classification

Classification under CLP: Eye Irrit. 2: H319

Most important adverse effects: Causes serious eye irritation.

2.2. Label elements

Label elements:

Hazard statements: H319: Causes serious eye irritation.

Hazard pictograms: GHS07: Exclamation mark



Signal words: Warning

Precautionary statements:

P264: Wash hands thoroughly after handling.

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.

P337+313: If eye irritation persists: Get medical attention.

2.3 Other Hazards

Mixture not classified as PBT or vPvB



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SDS COMPLETED 25TH OCTOBER 2017

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3. COMPOSITION OF INGREDIENTS

3.2 Mixtures

Hazardous ingredients:

FERROUS SULPHATE HEPTAHYDRATE (WET)

| EINECS | CAS | PBT / WEL | CLP Classification | Percent |
|-----------|-----------|-----------|----------------------------------------------------------------|---------|
| 231-753-5 | 7782-63-0 | - | Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315 | 10-30% |

COPPER EDTA - REACH registered number(s): 01-2119963944-23-0002

| | | | | |
|---|------------|---|----------------------------------------|-------|
| - | 14025-15-1 | - | Eye Irrit. 2: H319; Acute Tox. 4: H302 | 1-10% |
|---|------------|---|----------------------------------------|-------|

4. First Aid Measures

4.1 Any special measures:

Skin contact: Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

Ingestion: Wash out mouth with water.

Inhalation: Not applicable.

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 pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred. May cause permanent damage.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

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: Not applicable

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



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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: Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. 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. 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.

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

Workplace exposure limits:
No data available.



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DNEL/PNEC Values

Hazardous ingredients:

COPPER EDTA

| Type | Exposure | Value | Population | Effect |
|------|------------------------------------|-------|--------------------|--------|
| DNEL | Inhalation | 1.8 | Workers | Local |
| DNEL | Dermal | 3750 | Workers | Local |
| DNEL | Inhalation | 0.45 | General Population | Local |
| DNEL | Dermal | 1875 | General Population | Local |
| DNEL | Oral | 0.375 | General Population | Local |
| PNEC | Fresh water | 2.95 | General Population | Local |
| PNEC | Marine water | 0.3 | General Population | Local |
| PNEC | Microorganisms in sewage treatment | 65.4 | General Population | Local |
| PNEC | Soil (agricultural) | 0.21 | General Population | Local |

8.2. Exposure controls

| | |
|--------------------------------|----------------------------------------------------------------------------|
| Engineering measures: | Ensure there is sufficient ventilation of the area. |
| Respiratory protection: | Self-contained breathing apparatus must be available in case of emergency. |
| Hand protection: | Protective gloves. |
| Eye protection: | Tightly fitting safety goggles. 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: | 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: | 1.19-1.23 |
| pH: | 3.0-4.0 |
| VOC g/l: | No data available. |



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SDS COMPLETED 25TH OCTOBER 2017

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9.2. Other Information

Section 10: Stability and reactivity

Other information: No data available.

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:

FERROUS SULPHATE HEPTAHYDRATE (WET)

| | | | | |
|--------|-----|------|----------|-------|
| DERMAL | RAT | LD50 | >2000 | mg/kg |
| ORAL | RAT | LD50 | 300-2000 | mg/kg |

COPPER EDTA

| | | | | |
|-----------|-----|---------|-------|-------|
| DUST/MIST | RAT | 4H LC50 | >5.32 | mg/kg |
| ORAL | RAT | LD50 | 890 | mg/kg |

Relevant hazards for product:

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



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Symptoms / routes of exposure

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

Eye contact: There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred. May cause permanent damage.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

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

Section 12: Ecological information

12.1. Toxicity

Hazardous ingredients:

COPPER EDTA

| | | | |
|------|----------|-----|------|
| FISH | 96H LC50 | 555 | mg/l |
|------|----------|-----|------|

12.2. Persistence and degradability

Persistence and degradability: Biodegradable

12.3. Bioaccumulative potential

Bioaccumulative potential: No 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: Negligible ecotoxicity.

Section 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 disposed of in accordance with local and national regulations.

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

Section 14: Transport information

Transport class: This product does not require a classification for transport.



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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

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

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3:

H302: Harmful if swallowed.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

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.