



SAFETY DATA SHEET

SYMBIO SSD 8-0-0 +2.5%Fe

SDS COMPLETED 2ND SEPTEMBER 2015

VERSION 01
REVISION NUMBER: N/A

1. Identification of the Substance and the Company

1.1. Product identifier

Symbio SSD 8-0-0 +2.5%Fe

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

Fertiliser

1.2. 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

2.2. Label elements

Signal Word: none

Hazard Statements: none

Precautionary statement(s) (prevention):

P261: avoid breathing dust

P285: in case of inadequate ventilation, wear respiratory protection

P264: Wash hands thoroughly after handling.

P402+404: Store in a dry place. Store in a closed container.

Precautionary statement(s) (response):

P304+P341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P342+P311: If experiencing respiratory symptoms call a doctor/physician.

Precautionary statement(s) (disposal):

P501: Dispose of contents/container in accordance with local regulations

2.3. Other hazards

This product contains less than 1% quartz (respirable). Depending on the type of handling and use (e.g.grinding, drying), airborne respirable crystalline silica (quartz cristobalite) may be generated. Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable crystalline silica dust should be monitored and controlled. This product should be handled with care to avoid dust generation.

This substance is not classified as PBT or vPvB according to current EU criteria.

Category 3 Material. Not for human consumption. Organic fertilisers or soil improvers: No grazing of farmed animals or use of crops as herbage during at least 21 days following application, in the case of pigs during at least 2 months following application.



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3. Composition/Information on Ingredients

3.2. Mixtures

Chemical Name	CAS-No./ EINECS-No.	Symbol(s) and phrases	Precautionary statements:	Concentration [%]
Ferrous Sulphate monohydrate	17375-41-6/ 231-753-5	GHS07 Acute Tox. 4 H302: Harmful if swallowed Skin Irrit. 2 H315: Causes skin irritation Eye Irrit. 2 H319: Causes serious eye irritation	P273 P280 P301/312 P302/352 P305/351/338 P313	5-10%

4. First Aid Measures

4.1. Description of first aid measures

- Eye contact – Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- Skin contact – Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse.
- Ingestion – wash out mouth with water and seek medical advice.
- Inhalation – remove to fresh air.

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

- Skin Contact: Repeated and/or prolonged contact may cause irritation.
- Eye Contact: Dusty/gritty material expected to cause irritation to eyes.
- Ingestion: May cause irritation of gastro intestinal tract leading to nausea, vomiting, abdominal pain and diarrhoea.
- Inhalation: High concentration of dust may be irritating to trachea and lungs.

4.3 Indication of any immediate medical attention and special treatment needed

None

5. Fire-Fighting Measures

5.1. Extinguishing media

Non flammable. If involved in a fire use water spray, CO₂ or dry powder.

5.2. Special hazards arising from the substance or mixture

In intense heat, product decomposition will release toxic nitrogen and sulphur oxide fumes.

5.3. Advice for firefighters

Wear self-contained breathing apparatus in confined spaces. Contain contaminated run-off.

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Wear protective gloves and eye protection. Wash hands and exposed skin after handling.

6.2. Environmental precautions

Do not allow to enter drains or sewers.



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6.3. Methods and material for containment and cleaning up

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal.

7. Handling and Storage

7.1. Precautions for safe handling

Ensure good ventilation at workplace. Ensure good hygiene practices are observed. Do not eat, drink or smoke when handling this product. Do not breathe dust. Avoid contact with skin and eyes. Ensure workplace exposure limits are observed. Do not block stack pallets.

7.2. Conditions for safe storage, including any incompatibilities

Store in original containers, tightly closed in a secure, well ventilated, cool but frost-free, dry area. Store clear of foodstuffs and in a separate stack from herbicides.

7.3. Specific end use(s)

Fertiliser.

8. Exposure controls/ Personal protection

8.1. Control parameters Occupational exposure limits

Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, respirable dust, respirable crystalline silica dust) The OEL (Occupational Exposure Limit) for respirable crystalline silica dust is 0.1mg/m³ in the United Kingdom, measured as an 8 hour TWA (Time Weighted Average). Nuisance dust: Inhalable dust 10 mg/m³ // Respirable dust 4 mg/m³

DNELs Figures stated are for ferrous sulphate.7H₂O

Worker

Acute systemic effects, dermal:	(FeSO ₄ *7H ₂ O) 2.8 mg/kg/d
Acute systemic effects, inhalative:	(FeSO ₄ *7H ₂ O) 9.9 mg/m ³
Systemic long-term effects, dermal:	(FeSO ₄ *7H ₂ O) 2.8 mg/kg/d
Systemic long-term effects, inhalative:	(FeSO ₄ *7H ₂ O) 9.9 mg/m ³

Consumer

Acute systemic effects, oral:	(FeSO ₄ *7H ₂ O) 1.4 mg/kg/d
Acute systemic effects, dermal:	(FeSO ₄ *7H ₂ O) 1.4 mg/kg/d
Acute systemic effects, inhalative:	(FeSO ₄ *7H ₂ O) 2.5 mg/m ³
Systemic long-term effects, oral:	(FeSO ₄ *7H ₂ O) 1.4 mg/kg/d
Systemic long-term effects, dermal:	(FeSO ₄ *7H ₂ O) 1.4 mg/kg/d
Systemic long-term effects, inhalative:	(FeSO ₄ *7H ₂ O) 2.5 mg/m ³

PNECs The PNECs given in this section were derived based on the concentration which would cause a 10% increase above typical natural background levels of iron in soil and sediment. Thus the respective PNEC is equal to 110% of the typical natural background level of iron.

Water Iron is an essential trace element for fish, aquatic invertebrates and plants. A direct toxicity could not be demonstrated in tests. Therefore no PNEC was derived.

Sewage treatment plants (STP) PNEC STP Fe: 500 mg/l;

Sediment PNEC Sediment (freshwater): Fe: 49.5 g/kg;
PNEC Sediment (marine water): Fe: 49.5 g/kg;

Soil PNEC soil: Fe: 55.5 g/kg;

Oral (food chain) Iron is an essential trace element for fish, aquatic invertebrates and plants. A direct toxicity could not be demonstrated in tests. Therefore no PNEC was derived



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8.2. Exposure controls

Personal protective equipment:

General protective and hygienic measures: The general personal protection measures of the chemical industry apply. The usual precautionary measures should be adhered to in the handling of the chemicals. Wear protective gloves and eye protection. Take off contaminated clothing and wash before reuse. Do not eat, drink or smoke when handling this product.

Breathing equipment: Dust Mask FFP2 Not required if all workplace limits are observed and good ventilation is ensured.

Protection of hands: Requirements according to EN 420. Check protective gloves prior to each use for their proper condition.

Preventive skin protection by use of skin protecting agents is recommended.

Material of gloves: Polychloroprene recommended.

Penetration time of glove material: Protective gloves should be replaced at first sign of wear

Eye protection: Tightly sealed safety glasses.

Body protection: Protective work clothing.

9. Physical and Chemical properties

9.1. Information on basic physical and chemical properties

Appearance	grey/ brown microgranule
Odour	slight metallic
pH	no relevant data available
Boiling point	decomposes above 200-250°C
Melting point	no relevant data available
Flash point	no relevant data available
Flammability	no relevant data available
Autoflammability	no relevant data available
Explosivity	no relevant data available
Oxidising properties	no relevant data available
Vapour Pressure	no relevant data available
Relative density	no relevant data available
Solubility	contains >50% insoluble material

9.2. Other information

None

10. Stability and Reactivity

10.1. Reactivity

no relevant data available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reacts with strong alkalis to release ammonia

10.4. Conditions to avoid

Store away from heat

10.5. Incompatible materials

strong oxidising agents.

10.6. Hazardous decomposition products

Decomposes at high temperatures producing toxic nitrogen and sulphur oxide fumes.



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11. Toxicological information

11.1. Information on toxicological effects Acute toxicity - oral

Not classified as harmful by inhalation, ingestion or in contact with skin. Ingestion of large quantities may cause gastric disturbance.

Acute toxicity

LD/LC50 values that are relevant for classification:

Data for ferrous sulphate 7720-78-7:

Oral LD50 1389 mg/kg (rat)

Primary irritant effect for Ferrous sulphate:

on the skin: OECD 404: Irritant for skin and mucous membranes,

on the eye: OECD 405: Irritant effect.

Sensitization: OECD 429 (LLNA-test); No sensitizing effects.

Subacute to chronic toxicity:

Data of the Key Studies for iron sulphates and iron chlorides:

Oral NOAEL 57 - 65 mg Fe/kg/d (rat, 90 days) (not according to OECD)

Dermal NOAEL no relevant data available

Inhalative NOAEC no relevant data available

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

There are no indications of CMR effects.

Specific target organ toxicity (STOT)

No specific target organ toxicity according to the criteria defined in Regulation (EC) No. 1272/2008.

Aspiration hazard No data, not an aspiration hazard.

12. Ecological information

12.1. Toxicity

not classified as hazardous. Provides nutrients essential to plant growth.

12.2. Persistence and degradability

no relevant data available

12.3. Bioaccumulative potential

no relevant data available

12.4. Mobility in soil

no relevant data available.

12.5. Results of PBT and vPvB assessment

not classified.

12.6. Other adverse effects

no relevant data available

13. Disposal considerations

13.1. Waste treatment methods

Disposal route should not permit contamination of groundwater. Dispose of waste through a reputable waste disposal contractor in accordance with the Environmental Protection Act 1990.



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14. Transport information

14.1. UN number

ADR, IMDG, IATA : Not applicable.

14.2. UN proper shipping name

ADR, IMDG, IATA: Not applicable.

14.3. Transport hazard class(es)

ADR, IMDG, IATA

Class: Not applicable.

14.4. Packing group

ADR, IMDG, IATA: Not applicable.

14.5. Environmental hazards

Not a marine pollutant.

14.6. Special precautions for user

None

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

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 (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended), 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) (as amended), and the EC Fertiliser Regulations 2003.

15.2. Chemical safety assessment

not undertaken for this material

16. Other information

Reason for revision: MSDS re-formatted in-line with regulation 453/2010 all sections affected.

Disclaimer

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