

**SAFETY DATA SHEET**  
**SYMBIO SSD 8-0-0 +2.5%Fe**

SDS COMPLETED 2<sup>ND</sup> 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:**

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**

**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.

**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.

**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/m<sup>3</sup> in the United Kingdom, measured as an 8 hour TWA (Time Weighted Average). Nuisance dust: Inhalable dust 10 mg/m<sup>3</sup> // Respirable dust 4 mg/m<sup>3</sup>

DNELs Figures stated are for ferrous sulphate.7H<sub>2</sub>O

Worker

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

Consumer

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

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

**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.

## **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.

**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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