

1. Identification of the Substance and the Company

1.1. Product identifier

Product name: Symbio Mycorrhizal Inoculant
 Notes: This is a non-mandated safety data sheet

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

Identified uses A microbial plant growth promoter

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 telephone 0800 138 7222 (09:00-17:00 GMT Monday – Friday)
 National Emergency telephone 111

2. Hazards Identification

2.1. Classification of the substance or mixture Classification

Physical hazards Not Classified
 Health hazards Not Classified
 Environmental hazards Not Classified

2.2. Label elements

Pictogram none
 Signal Word: none
 Hazard Statement(s): None

2.3. Other hazards

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

The bacteria and fungi in this mixture are considered to belong to hazard group 1 as defined by the Advisory Committee on Dangerous Pathogens (ACDP) as “a biological agent unlikely to cause human disease”. It should NOT be assumed. However, that these organisms will be innocuous in all situations or that infections can never occur. The mixture should therefore not be used by, or in the presence of immunocompromised persons.

This product does not meet the criteria for classification as hazardous as defined in the Regulation EC 1272/2008 and in Directive 67/548/EEC. Depending on the type of handling and use, airborne respirable crystalline silica may be generated. Prolonged and/or massive inhalation of respirable crystalline silica dust (particles up to 10 microns in size) 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.

3. Composition/Information on Ingredients

3.2. Mixtures

A mixture containing beneficial soil microorganisms on a clinoptilolite base.

The microorganisms in this mixture are considered to belong to hazard group 1 as defined by the Advisory Committee on Dangerous Pathogens (ACDP) as “a biological agent unlikely to cause human disease”. It should NOT be assumed however, that this organism will be innocuous in all situations or that infections can never occur. The mixture should therefore not be used by, or in the presence of, immunocompromised persons.

Crystalline silica inhaled in the form of quartz is carcinogenic to humans (Group 1). This product contains less than 0.1% respirable crystalline silica, well below exposure limits, and under normal conditions of use and storage, is not expected to cause cancer.

Name	CAS no.	Concentration (w/w %)	PBT / WEL	CLP Classification
Potassium nitrate	7757-79-1	1-5%	No	Ox.Sol.3 – H272
Clinoptilolite (dust)	12173-10-3	25-35%	Substances with community workplace exposure limits	Not classified
Silica Hydrated	7631-86-9	2-3%		Not classified
Quartz (Respirable <0.1%)	14808-60-7	0-0.5%		Not classified

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

4. First Aid Measures

4.1. Description of first aid measures

Inhalation	Remove to fresh air and keep at rest. Get medical attention if any discomfort continues.
Ingestion	Rinse out mouth with water and seek medical advice.
Skin contact	Wash hands and exposed skin with soap and water.
Eye contact	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 10 minutes. Get medical attention if symptoms persist.

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:	Excessive ingestion may cause feelings of nausea.
Inhalation:	Not anticipated under normal conditions of use.

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

Notes for the doctor	Treat symptomatically.
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5. Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Not applicable.

5.2. Special hazards arising from the substance or mixture

Specific hazards	None known.
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5.3. Advice for firefighters

Protective actions during firefighting	No specific firefighting precautions known.
Special protective equipment for firefighters	Use protective equipment appropriate for surrounding materials.

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid airborne dust generation, do not breathe dust.
 Ensure adequate ventilation
 Avoid contact with eyes and skin
 Wash hands thoroughly after handling

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Sweep up spills carefully to minimise airborne dust, transfer to suitable container and keep safe for disposal.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

7. Handling and Storage

7.1. Precautions for safe handling

Read label before use.
 Avoid inhalation of dust and contact with skin and eyes.
 Wear appropriate clothing to prevent repeated or prolonged skin contact.
 Wash hands thoroughly after handling.
 Do not smoke, eat or drink when handling product.
 Handle packaged products carefully to prevent accidental bursting.
 Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in original containers in a cool dry place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure controls/ Personal protection

8.1. Control parameters Occupational exposure limits

Ingredients with limits that require monitoring

Name	Product Identifier	Limit value – 8 hours TWA (UK) ¹
Silica Hydrated (Amorphous Opaline Silica)	CAS no: 7631-86-9	6 mg/m ³ (inhalable aerosol) 2.4 mg/m ³ (respirable aerosol)
Quartz (Respirable <0.1%)	CAS no: 14808-60-7	0.1 mg/m ³ (respirable aerosol)
Clinoptilolite (dust)	CAS no: 12173-10-3	10 mg/m ³ (inhalable dust) 4 mg/m ³ (respirable dust)

¹For equivalent limits in other countries, please consult the local regulatory authority

SYMBIO MYCORRHIZAL INOCULANT

SDS COMPLETED 4TH FEBRUARY 2021

VERSION 02

Potassium nitrate (CAS: 7757-79-1)

<p>DNEL</p> <p>PNEC</p>	<p>Workers - Dermal; Long term systemic effects: 20.8 mg/kg/day</p> <p>General Population - Dermal; long term systemic effects: 12.5 mg/kg/day</p> <p>Workers - Inhalation; Long term systemic effects: 36.7 mg/m³</p> <p>General Population - Inhalation; long term systemic effects: 10.9 mg/m³</p> <p>- Fresh water; 0.045 mg/l</p> <p>- Marine water; 0.045 mg/l</p>
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8.2. Exposure controls

Protective equipment



Appropriate engineering controls For normal use apply outdoors or in a well ventilated area. Minimise airborne dust generation. Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below specified exposure limits. If user operations generate dust, use ventilation to keep exposure to airborne particles below the exposure limit. Apply organisational measures, e.g. by isolating personnel from dusty areas. Remove and wash soiled clothing.

Eye/face protection	Wear eye protection.
Hand protection	Wear protective gloves.
Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Hygiene measures	Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.
Respiratory protection	In areas with inadequate ventilation wear a dust mask.

9. Physical and Chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Granules.
Colour	Light brown or grey.
Odour	Mild.
Odour threshold	Not determined.
pH	Slightly Alkaline
Melting point	Not relevant.
Initial boiling point and range	Not relevant.
Flash point	Not relevant.
Evaporation rate	Not relevant.
Flammability (solid, gas)	The product is not flammable.
Vapour pressure	Not relevant.
Vapour density	Not relevant.
Relative density	Not relevant.
Solubility(ies)	Not known.
Partition coefficient	Not known.
Auto-ignition temperature	Not relevant.
Decomposition Temperature	Not relevant.
Viscosity	Not relevant.
Explosive properties	Not relevant.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	No information required
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10. Stability and Reactivity

10.1. Reactivity

No test data specifically related to reactivity available for this product or its ingredients.

10.2. Chemical stability

Stability Stable when stored in a dry place.

10.3. Possibility of hazardous reactions

No potentially hazardous reactions known.

10.4. Conditions to avoid

There are no known conditions that are likely to result in a hazardous situation.

10.5. Incompatible materials

Materials to avoid Strong oxidizing agents, hydrofluoric acid..

10.6. Hazardous decomposition products

None known.

11. Toxicological information

11.1. Information on toxicological effects Acute toxicity - oral

Notes (oral LD50) No specific test data are available.

Acute toxicity - dermal

Notes (dermal LD50) No specific test data are available.

Acute toxicity - inhalation

Notes (inhalation LC50) No specific test data are available. Excessive inhalation of respirable particles (up to 10 micron) over an extended period may result in silicosis of the lung.

Serious eye damage/irritation

Irritation of eyes is assumed. From dusty gritty material.

Respiratory sensitisation

No specific test data are available.

Skin sensitisation

Not determined.

Germ cell mutagenicity

Genotoxicity - in vitro This substance has no evidence of mutagenic properties.

Carcinogenicity

No specific test data are available.

Reproductive toxicity

Reproductive toxicity – fertility Does not contain any substances known to be toxic to reproduction.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Not anticipated to present an aspiration hazard, based on chemical structure.

12. Ecological information

Ecotoxicity The product is not expected to be toxic to aquatic organisms.

SAFETY DATA SHEET
SYMBIO MYCORRHIZAL INOCULANT

SDS COMPLETED 4TH FEBRUARY 2021

VERSION 02

12.1. Toxicity

12.2. Persistence and degradability

Persistence and degradability The product is partially degradable. The bacteria and fungi are naturally present in the environment.

12.3. Bioaccumulative potential

Partition coefficient Not expected to bioaccumulate.

12.4. Mobility in soil

Mobility No data available.

12.5. Results of PBT and vPvB assessment

This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Not relevant.

13. Disposal considerations

13.1. Waste treatment methods

General information Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Disposal methods Reuse or recycle products wherever possible. No specific disposal method required.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant No.

14.6. Special precautions for user

Not applicable.

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

REACH – Exempted in accordance with Annex V.7
 Workplace Exposure Limits 2005 (EH40)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

16. Other information

Hazard statements in full H272 May intensify fire; oxidizer.

Revisions: This version supersedes all previous versions
 Section 3 composition – product contains ingredients with work place exposure limits
 Section 8.1 control parameters – work place exposure limits included
 Minor editorial changes throughout

Legend to abbreviations used:

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
EC-No.	European Community number
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
TWA	Time Weighted Average
vPvB	Very Persistent and Very Bioaccumulative

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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