



SAFETY DATA SHEET
SYMBIO HUMIC BOOSTER POWDER

SDS COMPLETED 29TH JULY 2015

VERSION 01
REVISION NUMBER: N/A

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

1.1. Product identifier

Product name Humic Booster Powder

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

Identified uses Agriculture/Amenity Turf

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 phone number

Phone number: 44 (0) 1428 685762

2. Hazards identification

The substance is not classified as dangerous to health and environment.

The substance can cause sensitive individuals eye, skin or respiratory tract irritation.

Chronic effects are not known.

3. Composition/information on ingredients

Potassium salt of humic substances; Humic acids, potassium salts

3.2. Mixtures

Name of component	Content of humic Components (%)	Content K (%)	CAS number	EINECS number	Symbol of hazard	R- sentences
Humic acids, Potassium salts	> 60%*	14-16%	68514-28-3	271-030-1	None	none

4. First aid measures

Inhalation

Get rid of the exposing source, provide fresh air for the affected, and cleanse mouth with water. Seek medical advice in affection.

Skin contact

In case of skin contact, rinse skin with stream of water. In case of persistent symptoms, contact a doctor.

Eyes contact

Wash out the widely open eyes immediately with flowing water for 10 minutes so the water reached under the lids. Seek medical advice in affection.

Ingestion

Rinse mouth. Do not evoke vomiting. Contact a physician if large quantities are ingested



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5. Firefighting measures

5.1 Suitable extinguishers

The substance is not flammable. Use a stream of water, water mist for extinguishing.

5.2 Improper extinguishers

Do not use carbon dioxide or powder appliances for extinguishing for powder material may be blown up, do not use bold stream of water.

5.3 Special risks

In case of fire dangerous flue gases – carbon monoxide, carbon dioxide, potassium oxides.

5.4 Special means of protection for fire-fighters:

Full protective garment, protection of air passages.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid skin and eye contact, conform common hygienic measures. Do not eat or smoke while working. Do not use open fire.

6.2. Environmental precautions

Avoid water and soil contamination.

6.3. Methods and material for containment and cleaning up

In case of leak (spill), remove the spill substance with mechanical means – sweeping, hoovering. Place the residues into a suitable waste container.

7. Handling and storage

7.1. Precautions for safe handling

Handle the product only in designed areas. Prevent dust generation. Drinking, smoking and eating forbidden while working. No special measures are needed at handling.

7.2. Conditions for safe storage, including any incompatibilities

Store and stock the substance in original casings, in dry environment and protect it against climatic effects.

7.3. Specific end use(s)

Specific end use(s): None

8. Exposure Controls/personal protection

The control exposition parameters are not defined (Annex No.2 Chemical substances, their hygienic limits and definition procedure (NV No.361/2007 Coll.). The limiting values of the biological exposition tests indicators are not defined either (Annex No.2 Limiting values of biological exposition tests indicators (Regulation No. 432/2003 Coll.).

8.1. DNEL/PNEC Values

DNEL / PNEC No data available.



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8.2. Exposure controls

Provide sufficient ventilation, local exhaustion is recommended. Provide the people working with the product to use personal protective means and acquainted with the substance character, instruction manual and personal and environmental protection conditions. Contaminated work cloths can be used again after careful cleaning. After the work is completed wash the hands and face with water and soap and treat the hands with a reparable cream.

General personal protective means:

The means of common use for work in chemical industry.

Air passagys protection: Respirator or facecloth in emergency (when dust particles release)

Hands protection: Protective rubber gloves

Eye protection: Protective chemical glasses in case of substance eye penetration

Skin protection: Work clothes

9. Physical and Chemical Properties

State (under 20°C):	Solid powder substance
Colour	Black and brown
Odour:	No odour.
pH:	9 -11.5 (10% water solution)
Boiling point / Distillation range:	Cannot be defined in the range (30 - 640°C) - <i>EU A.1 method</i>
Melting/freezing point:	Cannot be defined in the range (30 - 640°C) - <i>EU A.2 method</i>
Burning point:	N/a
Flammability:	Substance is not high flammable - <i>EU A.10 method</i>
Relative auto-ignition temperature:	Cannot be defined - <i>EU A.16 method</i>
Explosive features:	Substance is not explosive - <i>EU A.14 method</i>
Oxidative features:	Substance has not got oxidative features- <i>EU A.17 method</i>
Vapour pressure:	527 Pa under 20°C; 651 Pa under 25°C - <i>EU A.4 method</i>
Relative density:	1.499 - <i>EU A.3 method</i>
Water solubility:	279 g/L (20°C) - <i>EU A.6 method</i>
Fat solubility:	N/a
Coefficient of n-octanol/water distribution:	$\log P_{OW} = -2.16 \pm 0.45$ (pH 9.1, 23°C) - <i>EU A.8 method</i>
Viscosity:	N/a
Vapour density:	N/a
Evaporation rate:	N/a
Decomposition point:	N/a
Other information:	Bulk density 510 kg/m ³

10. Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: The substance is stable under common conditions of use and storage.

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

Conditions to avoid: Contact with strong oxidants, risk of explosion danger.

10.5. Incompatible materials

Materials to avoid: Strong oxidants.



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10.6. Hazardous decomposition products

Carbon dioxide, potassium oxide can release in fire.

11. Toxicological information

This product is regarded as non-toxic

11.1. Information on toxicological effects

Acute oral toxicity:	LD ₅₀ > 2000 mg/kg (rat) – <i>EU B.1 tris method</i>
Acute inhalation toxicity:	N/a
Acute dermal toxicity:	LD ₅₀ > 2000 mg/kg (rat) – <i>EU B.3 method</i>
Skin irritation:	The substance has no irritable effects on skin (rabbit) – <i>EU B.4 method</i>
Eye irritation:	The substance has no irritable effects on eyes (rabbit) – <i>EU B.5 method</i>
Sensibilization	The substance has not sensitizing effects – <i>EU B.42 method</i>
Toxicity after repeated doses	28 day oral test (rat) – <i>EU B.7method</i> NOAEL (No Observed Adverse Effect Level) 500 mg/kg/den
CMR effects (carcinogenous, mutagenous and toxic for reproduction)	
Carcinogenity:	N/a
Mutagenity:	a/ in vitro Ames test (bacterial test of back mutation) negative - <i>EU B.13/14 method</i> Chromosomal aberration test (nonbacterial) negative - <i>OECD 473 method</i> b/ in vivo Negative micronucleus test <i>EU B.12 method</i>
Reproduction toxicity:	N/a

11.2 Symptoms / routes of exposure

Inhalation: The substance can cause irritation of respiratory organs.

Ingestion: The substance can cause sensitive individuals irritation of alimentary tract.

Eye contact: The substance can cause sensitive individuals eye irritation.

Skin contact: The substance can cause sensitive individuals skin irritation.

12. Ecological Information Ecotoxicity

12.1. Toxicity

Acute toxicity for fish (*Poecilia reticulata*) – *EU C.1 method*

24 hours - LC ₅₀ > 128 mg/L	24 hours - NOEC = 128 mg/L
48 hours - LC ₅₀ > 128 mg/L	48 hours - NOEC = 128 mg/L
72 hours - LC ₅₀ > 128 mg/L	72 hours - NOEC = 128 mg/L
96 hours - LC ₅₀ > 128 mg/L	96 hours - NOEC = 128 mg/L

Akutní toxicita pro dafnie (*Daphnia magna*) - *Metoda EU C.2*

24 hours - LC ₅₀ > 116 mg/L	24 hours - NOEC = 116 mg/L
48 hours - LC ₅₀ > 116 mg/L	48 hours - NOEC = 116 mg/L

Alga growth inhibition: N/a

Activated sludge respiration inhibition: *EU C.11method* EC₅₀ > 1000 mg/L

Other information: No toxic effects in the 10-1000 mg/L concentration range have proved on the microbial community of the activated sludge from ČOV on Tubifex Tubex worms.

12.2. Persistence and degradability

The substance is not easily degradable biologically. 2% decomposition within 28 days

EU C.4-E method

Abiotic decomposition - Hydrolysis as a pH function: under pH 4.7 and 9 (25°C) is the decomposition half time longer than 1 year. *EU C.7 method*



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12.3. Bioaccumulative potential

Coefficient of distribution: $\log P_{ow} = -2.16 \pm 0.45$ (pH=9.1; 23°C) *EU A.8 method*
Bio-concentrating factor (BCF): N/a.

12.4. Mobility in soil

Distribution into environmental components: Climate – particles dusting. Water – the substance sufficiently soluble in water.
Surface voltage: 67.7 mN/m under 20°C (1g/L water) –*EU A.5 method*. The substance is not considered superficially active material.
Adsorption/desorption: Adsorption coefficient in soil: $\log K < 1.3$ (pH=6.1; 25°C)
Adsorption coefficient in sludge: $\log K < 1.5$ (pH=6.1; 25°C) *EU C.19 method*

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT substance.

12.6. Other adverse effects

Other adverse effects: None

13. Disposal considerations

Possible risks in the substance or agent removal:

In handling use personal protective means and provide handling space against environmental leakage. In handling avoid substance divergence.

Disposal manner:

Hand over the designated waste for disposal to a specialized company certified to do that. Clean the packing and hand over for usage (on request of subjects collecting waste for use), e.g. hand over the packing with residues for disposal as non-risky waste.

Legal regulations:

CR Act No. 185/2001 Coll., to regulate waste as amended.
CR Act No. 477/2001 Coll., to regulate packings as amended.

14. Transport information

Non-hazardous

15. Regulatory information

Legal regulations valid for the substance:

ES 1907/2006 (REACH) directive

Act No. 356/2003 Coll., to regulate chemical substance and chemical agents as amended. Code of practice related to this law. Pursuant to the law

The substance is not classified risky

Risk symbol: no **R sentences:** no

S sentences: no

16. Other information Key literature references and sources for data

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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