



SAFETY DATA SHEET

\SMART ROTATIONS 4 Bioinoculant

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name SMART ROTATIONS 4 Bioinoculant

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

Identified uses Plant growth and health promoter.

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier

PlantWorks Ltd.
Unit 930, Cornforth Drive
Kent Science Park
Sittingbourne, Kent
ME9 8PX

1.4. Emergency telephone number

Emergency telephone +44 (0)1795 411527 (Mon-Fri 9am-5pm).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixtureClassification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

2.2. Label elements

Pictogram Not Required

Precautionary statements P102 Keep out of reach of children.
P264 Wash contaminated skin thoroughly after handling.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

This product does not contain any substances classified as persistent PBT or vPvB. The bacteria and ericoid 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 consumed. However, these organisms will be innocuous in all situations and that infections can never occur. The mixture should 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.

SECTION 3: Composition/information on ingredients

Water CAS number: 7732-18-5 Substance with National workplace exposure limits	>99%
Classification Not Classified	
Sodium chloride CAS number: 7647-14-5 Substance with National workplace exposure limits	>1%
Classification Not Classified	
Sodium phosphate dibasic CAS number: 7558-79-4 Substance with National workplace exposure limits	<0.05%
Classification Not Classified	
Dihydrogen potassium phosphate CAS number: 7778-77-0 Substance with National workplace exposure limits	<0.1%
Classification Not Classified	
Potassium chloride CAS number: 7447-40-7 Substance with National workplace exposure limits	<0.1%
Classification Not Classified	
Bacteria CAS number: Substance with National workplace exposure limits	<0.1%
Classification – Microbiologically categorised as Group I (Non-GM)	
Ericoid fungi	

CAS number:	<0.1%
Substance with National workplace exposure limits	
Classification – Microbiologically categorised as Group I (Non-GM)	

SECTION 4: First aid measures

4.1. Description of first aid measures

General information medical	Get medical attention if any discomfort continues. Show this Safety Data Sheet to the personnel.
Ingestion	Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel.
Skin contact	Rinse with plenty of water or at least 15 min. Remove contaminated clothing and wash before reuse. If symptoms arise, seek medical attention.
Eye contact	Flush eyes with water as a precaution. If symptoms arise, seek medical attention.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

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

General Information: None under normal use

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

Notes for the doctor Treat symptomatically

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media None known.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products Non-combustible

5.3. Advice for firefighters

Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment Self-contained breathing apparatus and full protective body clothing must be worn in case of fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eye. Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Avoid pollution of sewers and watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Contain and sweep up spillages. Place unusable material in clearly labelled containers of plastic bags for disposal. Wet residues are slippery, wash floor remove all traces.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage7.1. Precautions for safe handling

Usage precautions Keep out of reach of children. Read and follow manufacturer's recommendations. Keep away from food, drink and animal feeding stuffs. Wear protective clothing as described in Section 8 of this safety data sheet. Keep pack tightly sealed when not in use.

Advice on general occupational hygiene Wash skin thoroughly after handling. Take off contaminated clothing. Wash contaminated clothing before reuse.

SECTION 8: Exposure Controls/personal protection8.1. Control parameters

Occupational exposure limits N/A

8.2. Exposure controls

Appropriate engineering controls Provide adequate ventilation.

Eye/face protection Avoid contact with eyes.

Hand protection No specific hand protection required, although nitrile gloves are recommended.

Hygiene measures Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

Respiratory protection Respiratory protection is not required.

Environmental exposure controls Keep container tightly sealed when not in use.

SECTION 9: Physical and Chemical Properties9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Clear or black fungal growth of one species
Odour	Slight
Odour threshold	Not determined
pH	~7.0
Melting point	~ 0 °C
Initial boiling point and range	~100 °C
Flash point	Not applicable.
Evaporation rate	Not available
Upper/lower flammability or explosive limits	Non-flammable
Vapour pressure	No data available
Vapour density	>1.0
Relative density	1.2-1.28g/ml
Solubility(ies)	Soluble in water
Partition coefficient	Not available
Auto-ignition temperature	Not available
Decomposition Temperature	Not available
Viscosity	0.0091 poise at 25 °C
Explosive properties	Not explosive
Oxidising properties	Does not meet the criteria for classification as oxidising.

SECTION 10: Stability and reactivity10.1. Reactivity

Reactivity	None known
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10.2. Chemical stability

Stability	Stable under recommended storage conditions
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10.3. Possibility of hazardous reactions

	No data available
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10.4. Conditions to avoid

Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.
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10.5. Incompatible materials

Materials to avoid	Strong oxidising agents, strong bases and acidic solutions.
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10.6. Hazardous decomposition products

Hazardous decomposition Products	None under normal use conditions
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SECTION 11: Toxicological information

<u>11.1 Information on Toxicological effects</u>	Products not classified. Unlikely to be hazardous under normal conditions to use.
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SECTION 12: Ecological information

<u>12.1. Toxicity</u>	No data available
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<u>12.2. Persistence and degradability</u>	No data available.
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<u>12.3. Bioaccumulative potential</u>	No data available
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SECTION 13: Disposal considerations

Product	Observe Local Authority or licensed waste disposal contractor
Packaging	Treat as industrial waste

SECTION 14: Transport information

General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).
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<u>14.1. UN number</u>	N/A
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<u>14.2. UN proper shipping name</u>	N/A
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<u>14.3. Transport hazard class(es)</u>	No transport warning sign required
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<u>14.4. Packing group</u>	Not applicable
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<u>14.5. Environmentally hazardous</u>	None
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<u>14.6. Special precautions for user</u>	N/A
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<u>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</u>	N/A
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SECTION 15: Regulatory information15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations Health and Safety at Work etc.	Act 1974 (as amended). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No.
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1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.

EU legislation 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).
Commission Regulation (EU) No 2015/830 of 28 May 2015.
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).

15.2. Chemical safety assessment No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

SECTION 16: Other information

Key literature references European Chemicals Agency <http://echa.europa.eu/>

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.