



## SAFETY DATA SHEET

## SMART ROTATIONS 4 Biostimulant

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 Biostimulant

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

Identified uses Microbial feed and stimulant.

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.

Supplementary precautionary statements P280 Wear protective gloves/ protective clothing/ eye

protection/ face protection.

2.3. Other hazards

N/A

## SECTION 3: Composition/information on ingredients

Not classified.

## 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.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist.
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. Remove contaminated clothing and wash before reuse. If irritation persists, seek medical attention.
Eye contact	Rinse with water for at least 10 min. Obtain 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 Thermal decomposition of some ingredients may give off fumes. Do not breathe fumes.

5.3. Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. 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 Provide adequate ventilation. Avoid contact with eyes. 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 storage**7.1. 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. Avoid prolonged contact with metals.

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

**SECTION 8: Exposure Controls/personal protection**8.1. 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 recommended, nitrile gloves are advised.

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

Respiratory protection No specific recommendations. Provide adequate ventilation

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

**SECTION 9: Physical and Chemical Properties**9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Brown
Odour	Treacle like
Odour threshold	Not determined
pH	~5
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Upper/lower flammability or explosive limits	Non-flammable, not explosive
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	1.20 – 1.28 g/ml
Solubility(ies)	Not known.
Partition coefficient	Not available.

Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not applicable.
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity Product has long-term stability under normal conditions.

### 10.2. Chemical stability

Stability Not applicable.

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Avoid mixing with strong oxidising agents, strong acids, strong bases, hypochlorites, aldehydes, allyl chloride.

### 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

### 10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

## SECTION 11: Toxicological information

### 11.1 Information on Toxicological effects

Products not classified. Unlikely to be hazardous under normal conditions to use.

## SECTION 12: Ecological Information

### 12.1. Toxicity

Toxicity Contains nutrient essential for plant growth.

### 12.2. Persistence and degradability

Persistence and degradability Components are biodegradable. Avoid contamination of watercourses.

### 12.3. Bioaccumulative potential

Bioaccumulative potential Does not bioaccumulate.

## SECTION 13: Disposal considerations

Product Use 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).

- 14.1. UN number N/A
- 14.2. UN proper shipping name N/A
- 14.3. Transport hazard class(es) No transport warning sign required
- 14.4. Packing group Not applicable
- 14.5. Environmentally hazardous None
- 14.6. Special precautions for user N/A
- 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code N/A

#### SECTION 15: Regulatory information

##### 15.1. 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. 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.