



**MICROBIKA™**  
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## 1. IDENTIFICATION

**Product Name:** BPS

**Intended Use/Restrictions of use:** Phosphate-solubilizing rhizobacterium for improved growth and productivity.

**Details of Supplier of SDS:** Mikrobika  
P.O. Box 1143  
Lichtenburg, 2740, South Africa  
E-mail: info@microbika.com  
Emergency telephone: 0861-555 777 (AfriTox 24 Hour Service)

## 2. HAZARDS IDENTIFICATION

**Classification of the Substance** CLP / GHS / Hazcom 2012 Classification: Not classified as hazardous

**Skin Contact:** Non-irritant

**Eye Contact:** Non-irritant

**Inhalation:** Not an inhalation hazard under normal conditions of use.

**Ingestion:** Low toxicity product. It is highly unlikely that a sufficient quantity would be accidentally swallowed to cause any injury.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS#	EC#	Classification GHS
<i>Bacillus megaterium</i>	Not assigned	Not assigned	Not classified as hazardous

*Bacillus megaterium* in pH buffered solution. Not classified as hazardous

## 4. FIRST AID MEASURES

**Skin Contact:** Wash exposed skin with soap and water.

**Eye Contact:** Flush eyes with water for at least 15 minutes. If any irritation persists seek medical attention.

**Inhalation:** If breathed in, move person into fresh air. Get medical attention if any signs of sensitization (e.g. difficult breathing, chest pain, headache, and flu like symptoms) occur

**Ingestion:** Firstly wash mouth out with water, then drink water. Do not induce vomiting unless directed to do so by a physician.

**Advice to Physician:** Symptomatic treatment

## 5. FIRE-FIGHTING MEASURES

**Type of Material:** Non-combustible liquid.

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<b>Extinguishing Media:</b>	This product is not flammable or combustible. If caught in a fire, use media appropriate for surrounding fire.
<b>Special Exposure Hazards:</b>	This product does not burn freely. Responders should take into consideration the hazardous risk associated with responding to a fire in the area where the material may be stored or handled
<b>Special Protective Equipment:</b>	Wear self-contained breathing apparatus and protective clothing to prevent inhalation, ingestion, skin and eye contact. (Normal firefighting bunker gear)

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Use protective clothing, gloves, safety goggles and boots. Do not swallow.
<b>Environmental Precautions:</b>	Avoid run-off of undiluted material into water sources. Avoid disposal of large amounts into drains, surface water or groundwater.
<b>Disposal Method(s):</b>	Carefully clean up spilled material and wash exposed area with soap and water. Dispose material into suitable container, within local regulations.

## 7. HANDLING AND STORAGE

<b>Handling Precautions:</b>	Follow Biosafety Level 1 procedures. Handle according to instructions on product label. Do not eat or drink while handling the product. Wash exposed skin with soap and water after handling this product.
<b>Storage Conditions:</b>	Store in accordance with product label instructions. Do not freeze. Store in a cool, dry and dark place.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Control Parameters:</b>	Standard precautionary measures for handling chemicals should be observed.
<b>Exposure Controls:</b>	
Eye / face protection	Use safety goggles.
Skin protection	Use protective clothing & gloves.
Respiratory protection	No specific recommendation.
Thermal hazards	None.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**General Information:**


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Appearance:	Liquid
Colour:	Cloudy liquid
Smell:	No significant odour
Formulation Type:	Liquid (LQ)
<b>Storage Stability:</b>	Store at a constant temperature between 8 and 24°C. Do not freeze. Avoid temperature fluctuations.
<b>Shelf Life:</b>	12 months at room temperature.
<b>Bulk Density:</b>	1000 kg/m <sup>3</sup>
<b>Flammability:</b>	Non-flammable
<b>Flash Point:</b>	Not applicable
<b>pH:</b>	pH 6.5-9
<b>pH of 1% Aqueous Dilution:</b>	pH 6.5-9
<b>Oxidizing Properties:</b>	Non-oxidizing
<b>Corrosiveness:</b>	Non-corrosive
<b>Water Content:</b>	96%
<b>Solubility in Water:</b>	Not applicable
<b>Foaming:</b>	Not applicable
<b>Particle size:</b>	Not applicable
<b>Volatility:</b>	Non-volatile
<b>Viscosity:</b>	Not applicable

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	<i>Bacillus megaterium</i> loses viability with time. This product is stable for 12 months when stored at a constant temperature between 8 and 24°C.
<b>Conditions to Avoid:</b>	Avoid temperature fluctuation. Avoid temperatures above 24°C and below 8°C. Do not freeze.
<b>Materials to Avoid:</b>	Do NOT mix with any agrochemicals without consulting with your chemical distributor, consultant or the registration holder.
<b>Hazardous Decomposition Products:</b>	Hazardous polymerization will not occur

## 11. TOXICOLOGICAL INFORMATION

<b>Acute Oral Toxicity:</b>	> 5,000 mg/kg (rat)
<b>Eye Irritation:</b>	Mild eye irritation (rabbits)
<b>Skin Irritation:</b>	> 5,000 mg/kg (rabbit)
<b>Acute Pulmonary:</b>	No lethality was observed in rats after a 4-hour exposure at the highest obtainable inhalation exposure chamber concentration (2.84 mg/l).
<b>Acute Intra-peritoneal:</b>	Data not available

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Intravenous: Data not available  
Chronic Effects: Data not available

## 12. ECOLOGICAL INFORMATION

**Environmental Behaviour:** *Bacillus megaterium* is a phosphate solubilizing soil bacterium which occurs naturally in the ground.

**Mobility and Bio-accumulation potential:** Not determined

**Ecotoxic Effects:** Not determined

**General Information:** Not determined

## 13. DISPOSAL CONSIDERATIONS

**Precautions:** None of the ingredients raise concern for the environment.

**Disposal of Product:** Unwanted product may be safely disposed of in a land-fill or discarded as non-hazardous waste in accordance with local regulations.

## 14. TRANSPORT INFORMATION

**Road/rail:** Not classified as dangerous in the meaning of transport regulations.

**IMDG:** Not classified as dangerous in the meaning of transport regulations.

**ICAO:** Not classified as dangerous in the meaning of transport regulations.

**ADR:** Not classified as dangerous in the meaning of transport regulations.

## 15. REGULATORY INFORMATION

**Supply Classification:** None

**Hazard Symbols:** None

**Risk Phrases:** None

**Safety Recommendations:** Keep out of reach of children, uninformed persons and animals.  
Wear protective gloves.  
Wear protective goggles  
Do not swallow.  
To avoid risks to human health and the environment, comply with the instructions for use.

## 16. OTHER INFORMATION

**Recommended Use:** Phosphate-solubilizing rhizobacterium for improved growth and productivity.

**Further Information:**

Product classified and safety datasheet produced according to GHS directives.

*The information contained in this SDS was compiled using the latest and most reliable information available to Microbika. The data is based on the current expertise and presents the health, safety and environmental aspects of this product. They form no guarantee of product properties. Recommendations presented in this SDS apply only to the product as originally supplied. If other ingredients are used in the processing of this product, the recommendations for the use and handling of that product must be verified.*

*This document contains important information in order to ensure the safe storage, handling and use of this product. The information in this document must be brought to the attention of the safety/health/environmental advisor within your organisation. The information in this document must be made known to everyone whose work involves this product.*