

## MATERIAL SAFETY DATA SHEET

### Section 1: Product/Company Information

**Product Name** Bio-Fix SL

**Product uses** Natural Nitrogen Fixing product

**Supplier/Company** Parallax AG LLC  
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### Section 2: Chemical Composition

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Content (%w/v)</u>
<i>Paenibacillus durus</i>	Not Applicable	1x 10 <sup>9</sup> CFu/ml
<b>Other ingredients</b>	--	Q. S.

### Section 3: Hazardous Identification

**Toxicological risk classification according to WHO:** IV (Product that normally causes no harm).

**Adverse health effects** Avoid contact with eyes.  
Skin dryness and irritation may occur.  
Causes nausea, vomit, abdominal pain, diarrhea, and drowsiness in case of ingestion.

**Environmental Hazards** May be harmful to aquatic organisms.

**Symptoms of overexposure** Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema, or bronchitis.  
Skin contact may aggravate existing skin diseases.

### Section 4: First Aid Measures

**If ingested** Induce vomiting by giving a cup of water or milk. Immediately seek

medical advice.

**Eye contact**

Immediately flush the contaminated eye with plenty of water for 15 minutes or until the product is removed. Seek medical attention, if necessary.

**Skin Contact**

Take off contaminated clothing and shoes. Rinse skin immediately with plenty of cold water and soap. Wash contaminated clothing separately. Seek medical attention, if necessary.

**Inhalation**

Move affected person to fresh air. If breathing is difficult give artificial respiration. Seek medical attention, if necessary.

**Note to Physician**

No specific antidote. Treat symptomatically.

**Section 5: Fire Fighting Measures**

**Extinguishing Media**

Water, foam, dry chemical powder or dry carbon dioxide.

**Special Fire Fighting Procedures**

Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Use appropriate extinguishing media. Evacuate affected area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Cool nearby drums with water spray.

Persons who may have been exposed to contaminated smoke should be immediately examined by a physician and checked for symptoms of poisoning.

**Decomposition Products**

CO<sub>2</sub>, NO, and HCl organic compounds such as aromatic compounds.

## Section 6: Accidental Release Measures

<b>Personal precautions</b>	Wear appropriate safety clothing and eye/face protection.
<b>Environmental precautions</b>	Do not wash into sewers or into any water body.
<b>Methods for cleaning up the spills</b>	Contain the spill at its source. Clean up spills immediately, observing precautions outlined in Sections 7 and 8. Ventilate the area and wash spill site after material pick up is complete. On soils, skim off the upper contaminated layer and collect for disposal. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

## Section 7: Handling and Storage

<b>Handling</b>	<p>Keep out of reach of children and animals. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Avoid inhalation spray mist. Wear full protective clothing and equipment.</p> <p>After work, rinse gloves and remove protective equipment, and wash hands thoroughly with soap and water after handling, and before eating, tobacco use, drinking, or using the toilet. Wash contaminated clothing separately. Keep containers closed when not in use.</p>
<b>Storage</b>	<p>Store unused product in original container only, out of reach of children and animals. Keep out of direct sunlight. Store in an area that is cool, away from sources of ignition and oxidising agents and strong acids, away from food, feedstuffs, fertilizers, seed, and water sources. Protect the product from direct contact with water.</p>

## Section 8: Exposure Control/Personal Protection

<b>Engineering Controls</b>	Use only in well-ventilated area. Ensure work areas have ventilation, containment, and procedures sufficient to maintain airborne levels below the TLV. Warehouses, production area, parking lots and waste holding facilities must have adequate containment to prevent environmental contamination. Provide separate shower and eating facilities.
<b>Ingestion</b>	Do not eat, drink or apply cosmetics, where there is a potential for exposure to the product.
<b>Eyes protection</b>	Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
<b>Skin protection</b>	Chemical resistant gloves, coveralls, socks, apron and chemical resistant foot coverings should always be used while handling the product.
<b>Respiratory protection</b>	Always use NIOSH/MSHA approved respiratory protection equipment with a universal filter type including particle filter.
<b>General Protection</b>	Avoid contact with eyes and skin. While handling the product, wear cotton overalls buttoned to the neck and wrist and washable hat, elbow-length PVC gloves and face shield. After use and before eating drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield and contaminated clothing.

## Section 9: Exposure Control/Personal Protection

<b>Physical appearance</b>	Light yellow to brown liquid
<b>Odour</b>	Slight specific

<b>pH</b>	5-8
<b>Explosivity</b>	Non-explosive.
<b>Relative density</b>	1.01 ± 0.02 g/ml

#### Section 10: Stability and Reactivity

<b>Explosivity</b>	Non-explosive
<b>Flammability</b>	Non-flammable.
<b>Shelf life</b>	Stable for two years under normal conditions of storage and use.
<b>Conditions to avoid</b>	Extreme temperature conditions.
<b>Materials to be avoided</b>	Oxidizing agents, strong acids and bases.
<b>Hazardous decomposition products</b>	Combustion may result in the production of toxic gases such as CO <sub>2</sub> , NO, and HCl organic compounds such as aromatic compounds.

#### Section 11: Toxicological information

<b>Oral Acute LD<sub>50</sub> (Rats)</b>	> 5 000 mg/kg in rats
<b>Acute dermal LD<sub>50</sub> (Mice)</b>	> 5 000 mg/kg bw
<b>Skin irritation</b>	Non-irritant
<b>Eye irritation</b>	Non-irritant
<b>Skin sensitization</b>	Non-sensitizing.

#### Section 12: Ecological information

Toxic to aquatic organisms, may cause long-term adverse effects environment. Avoid any pollution of ground, surface or underground water.

### Section 13: Disposal Consideration

#### Disposal

Do not re-use empty containers. Empty container retains product residue. Triple rinse or equivalent, empty container and dispose off dilution mixture as a hazardous waste if it cannot be disposed off by use according to label instructions. Dispose off empty containers in accordance with local regulations. Consult Provincial Environment Ministry for advice on waste disposal. Industrial/commercial waste may be handled at licensed facilities only. Waste shipments must be securely packaged and properly labeled.

Only licensed carriers may be used, and proper documents must accompany the shipment.

### Section 14: Transport Information

**DOT classification:** Not a DOT controlled material (United States).

**DOT Hazardous class:** Non-regulated

**IMO/IMDG class:** Non-regulated (International Maritime Organization).

**UN number:** Not assigned (not a dangerous good)

**Identification:** *Paenibacillus durus*  $1 \times 10^9$  CFU/ml

**Special Provisions for Transport:** Not applicable (Not required).

### Section 15: Regulatory Information

Not a regulated product by various regulatory authorities globally.

### Section 16: Other Information

The information provided in this safety data sheet is believed to be accurate and reliable. The information is offered only as a guide to the handling of this specific material, but uses of this product may vary and situation unforeseen by Parallax AG LLC, USA may exist. No warranty of any kind is given/ implied and Parallax AG LLC, USA will not be reliable for any damages, losses, injuries or



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