

MATERIAL SAFETY DATA SHEET

DATE OF ISSUE: 01/01/2023

SECTION 1: IDENTIFICATION

1.1 Product name:

Biolevel ReGenerator Wettable Powder

1.2 Relevant identified uses and uses advised against:

For use as a seed coat by physically mixing with seed. Not for oral consumption. Not for direct contact with food or beverages.

1.3 Details of the supplier of the safety data sheet:

Manufactured for and quality guarantee by Biolevel Ltd. Registered in England No. 10079494.

1.4 Emergency telephone number(s):

+44 7807 097946

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the mixture:

According to Regulation (EC) No. 1272/2008: Not classified.

2.2 Label elements:

Hazard pictogram: None

Signal word: None

Hazard statement(s): None

2.3 Other hazards.

The mixture does not fulfil the criteria for PBT or vPvB substance. The preparation contains microorganisms belonging to hazard group 1 as defined by the Advisory Committee on Dangerous Pathogens (ACDP) as unlikely to cause human disease. However, it should not be assumed that infection can never occur. People who are immunocompromised should not work with this product.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Dextrose Monohydrate Powder

3.2 Chemical identity: $C_6H_{14}O_7$

3.3 Common name/synonyms: D-Glucose Monohydrate

3.4 Other ingredients:

Phanerochaete sp.	1.0 – 5.4%	By weight
Trichoderma sp..	1.0 – 5.4%	By weight
Bacillus spp.	0.5 - 3%	By weight
Paenibacillus sp.	0.1 – 1%	By weight
Pseudomonas sp.	0.1 -1%	By weight
Monosaccharide Powder.	84.2 - 97.3%	By weight

SECTION 4: FIRST AID MEASURES

4.1 General Advice:

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Take care to self-protect by avoiding becoming contaminated.

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

4.2.1 Symptoms/injuries after inhalation:

n/a

4.2.2 Symptoms/injuries after skin contact:

n/a

4.2.3 Symptoms/injuries after eye contact:

n/a

4.2.4 Symptoms/injuries after ingestion:

n/a

4.3 Description of first aid measures:

4.3.1 First aid measures after inhalation:

If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

4.3.2 First aid measures after skin contact:

Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.

4.3.3 First aid measures after eye contact:

If product enters the eyes, flush with plenty of water or eye wash solution for several minutes. Seek medical attention if irritation persists

4.3.4 First aid measures after ingestion:

If product is swallowed, call physician or poison center if you feel unwell. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.

4.4 Indication of any immediate medical attention and special treatment needed:

If medical advice is needed, have product container or label at hand. All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

SECTION 5: FIRE FIGHTING MEASURES**5.1 Extinguishing media:****5.1.1 Suitable extinguishing media:**

Use dry powder, foam, carbon dioxide or water for extinguishing. For larger fires use water spray or alcohol-resistant foam.

5.1.2 Unsuitable extinguishing media:

No data found.

5.2 Special hazards arising from the substance or mixture:**5.2.1 Fire hazard:**

DIRECT FIRE HAZARD. Combustible as powder, keep away from open flame, no smoking.
INDIRECT FIRE HAZARD. Temperature above flashpoint: higher fire/explosion hazard.

5.2.2 Explosion hazard:

No direct explosion hazards.

5.2.3 Reactivity:

Non-reactive.

5.3 Advice for firefighters:

5.3.1 Firefighting instructions:

Exercise caution when fighting any chemical fire.

5.3.2 Protection during firefighting:

Firefighters should wear full protective gear. Use self-contained breathing equipment if in confined place. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures:

6.1.1 General Measures:

Collect material via broom or mop. Place in tightly sealed containers for proper disposal. Approach spill areas with caution. If liquid was introduced, create a dike or trench to contain material. Soak up with absorbent material such as clay, sand or other suitable non-reactive material. Place in leak-proof containers. Seal tightly for proper disposal. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

6.2 For non-emergency personnel:

6.2.1 Protective equipment:

Use appropriate personal protection equipment (PPE).

6.2.2 Emergency procedures:

Evacuate unnecessary personnel.

6.3 For emergency responders:

6.3.1 Protective equipment:

Equip cleanup crew with proper protection. Use appropriate personal protection Equipment (PPE).

6.3.2 Emergency procedures:

Ventilate area.

6.4 Environmental precautions:

Do not allow to flow into drainage system.

6.5 Methods and material for containment and cleanup:

6.5.1 For containment:

Collect leakage in sealable containers, soak up with sand or other inert absorbent and remove to safe place. Flush away remainder with water.

6.5.2 Methods for cleaning up:

Clear up spills immediately and dispose of waste safely.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

7.1.1 Prevention of user exposure:

To prevent eye contact under the foreseeable conditions of use, wear appropriate safety eyewear. When handling, do not eat, drink, or smoke. Wash thoroughly after handling.

7.1.2 Prevention of fire and explosion:

Handling temperature ≥ 10 °C above melting point.

7.1.3 Precautions while moving the product:

Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.

7.1.4 Hygiene measures:

Handlers should wash hands and face before eating, drinking, and smoking.

7.2 Conditions for safe storage, including any incompatibilities:

7.2.1 Storage precautions:

Keep in a cool and dry place. Keep separate from oxidants. Avoid extreme heat and cold. Avoid direct fire. Store in clean, dry, and preferably stainless steel or HDPE vessels. In bulk, store at ambient temperature. Temperature higher than necessary degrades

quality at rate dependent on time and temperature of exposure. Exposure to ultraviolet light, especially sunlight, must be minimized to prevent quality loss.

7.2.2 Incompatible products:

KEEP SUBSTANCE AWAY FROM: heat sources, oxidizing agents, (strong) acids, (strong) bases.

7.2.3 Packaging materials:

Packaging should be closable, dry, clean, correctly labelled, and meet the legal requirements. Secure fragile packaging in solid containers. Suitable storage includes steel, aluminum, iron, synthetic material, glass.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

8.1.1 Occupational exposure controls:

n/a

8.1.2 Technical measures:

n/a

8.1.3 Occupational exposure limits:

n/a

8.2 Appropriate engineering controls:

8.2.1 Recommended monitoring procedures:

Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

8.3 Individual protection measures:

8.3.1 Personal protective equipment:

Gloves. Safety glasses. Protective clothing. Mist formation: aerosol mask with filter type P1. On heating: gas mask with filter type A.

8.3.2 Materials for protective clothing:

GIVE GOOD RESISTANCE: natural rubber, neoprene, PVC Viton.

GIVE LESS RESISTANCE: styrene- butadiene rubber.

GIVE POOR RESISTANCE: polyurethane.

8.3.3 Eye protection:

Use protective goggles and/or a full-face shield where splashing is possible. Use equipment approved by appropriate government standards, such as NIOSH (US) or EN166 (EU). Maintain eye wash fountain and quick-drench facilities in work area.

8.3.4 Hand protection:

Suitable protective gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

8.3.5 Skin and body protection:

Suitable protective clothing.

8.3.6 Environmental exposure controls:

n/a

8.3.7 Other information:

When using, do not eat, drink, or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 General information:**

Appearance:	This product is a white powder
Odour:	Odorless
Odour threshold:	n/a
pH:	n/a
Melting point/freezing point:	83 deg C
Boiling point:	n/a
Flash point:	n/a
Evaporation rate:	n/a
Flammability:	n/a
Vapour pressure:	n/a
Vapour density:	n/a
Relative density:	n/a
Solubility in water:	100%
Partition coefficient:	n/a
Auto-ignition temperature:	n/a
Decomposition temperature:	n/a
Viscosity:	n/a
Explosive properties:	n/a
Oxidising properties:	n/a

9.2 Other information:

None

SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity:**

This product is not reactive.

10.2 Chemical stability:

Stable under conditions of normal storage and use.

10.3 Possibility of hazardous reactions:

Will not occur.

10.4 Conditions to avoid:

Contact to incompatibles.

10.5 Incompatible materials:

Reacts violently with strong oxidants. Avoid biocides.

10.6 Hazardous decomposition products:

Carbon Monoxide (CO) and Carbon Dioxide (CO₂)

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Acute toxicity by oral route, inhalation, and dermal route:**

No specific data available.

11.2 Skin irritation/corrosion:

No specific data available.

11.3 Eye irritation:

No specific data available.

11.4 Skin sensitization:

No specific data available.

11.5 Respiratory irritation:

Can be harmful if inhaled. Can be irritating to the respiratory tract. Avoid exposure to mist.

11.6 CMR effects:

11.6.1 Mutagenicity:

Mutagenic effects have occurred on experimental animals.

11.6.2 Carcinogenicity:

n/a

11.6.3 Reproductive toxicity:

This product has shown reproductive toxicity effects on experimental animals.

11.6.4 Developmental toxicity:

Developmental effects have occurred on experimental animals.

11.6.5 Repeated dose toxicity – oral route:

n/a

11.6.6 Toxicokinetic:

n/a

11.6.7 Chronic/other effects:

Tumorigenic effects have been reported in experimental animals.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity (aquatic and terrestrial, where available):

12.1.1 Ecology – general:

No supplementary information available.

12.1.2 Ecology – air:

n/a

12.1.3 Ecology – water:

No specific data available for this product.

12.2 Persistence and degradability:

No specific data available for this product.

12.3 Bio-accumulative potential:

No specific data available for this product.

12.4 Mobility in the soil:

No specific data available for this product.

12.5 Other adverse effects:

No adverse effects available.

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Methods of disposal of waste residue:**

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

13.2 Disposal of contaminated packaging:

No specific data available for this product.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number: not regulated as a hazardous material.

14.2 UN proper shipping name:

14.2.1 ADR/RID: Not dangerous goods

14.2.2 IMDG: Not dangerous goods

14.2.3 IATA: Not dangerous goods

14.3 Transport hazard class(es): Not hazardous according to RID/ADR, GGVS/GGVE, ADNR, IMDG, ICAO-TI/IATA-DGR.

14.4 Packing group: n/a

14.5 Environmental hazards (e.g.: Marine pollutant (Yes/No)): No

14.6 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): n/a

14.7 Special precautions: n/a

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture:

15.1.1 EU Regulations:

This product does meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

15.1.2 National regulations:

Chemical inventories: Listed on AICS, DSL, ECL, ECST, ENCS, IECSC, NZIoC, PICCS, SWISS, TSCA, EC inventories Swiss Ordinance (RS 817.023.21) Annex 6: List of additives (part A), List of binders (part A), List of solvents (part A) WGK class: 1 (weak water endangering).

15.1.3 US Regulations:

None

15.2 Chemical safety assessment:

15.2.1 SARA 302 Components:

The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act as follows: None

15.2.3 SARA 311/312 Hazards:

Chronic health hazard.

15.2.4 CERCLA:

No chemicals in this material with known CAS numbers are subject to the reporting requirements of CERCLA.

California Prop 65 Components:

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: OTHER INFORMATION

16.1 Training advice:

Before using/handling the product, one must read carefully the present SDS and product label. Always work safely around open hatches on bulk tanks.

16.2 Revision date:

Revision: 0

Disclaimer:

To the best of our knowledge the information contained herein is accurate. However, neither Biolevel Ltd. nor any of its subsidiaries assume any liability whatsoever for the accuracy or completeness of the information contained herein. The final determination of the suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.