

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 05/04/2016

Reviewed on 05/04/2016

* 1 Identification

- **Product Identifier**
- **Trade name: ROOT LIFE MICROBES**
- **Relevant identified uses of the substance or mixture and uses advised against:**
No further relevant information
- **Product Description** Dry, Powdered Beneficial Microbial Soil Inoculant In a dextrose carrier
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Green Life, LLC/DBA: KEY TO LIFE
10900 W. 120th Ave, Unit C
Broomfield, CO 80021
855-695-3986
www.keytolifegarden.com
- **Emergency telephone number:** 970-818-6445

* 2 Hazard(s) Identification

- **Classification of the substance or mixture:**
The product does not need classification according to OSHA HazCom Standard 29 CFR paragraph (d) of §1910.1200(g) and GHS Rev 03.
- **Additional information:** Chemical Family: Bacterial Complex

- **Label elements:**
- **GHS label elements** Non-Regulated Material
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Non-Regulated Material
- **Hazard statements:** Non-Regulated Material
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- **Hazard(s) not otherwise classified (HNOC):** None known

3 Composition/Information on Ingredients

- **Chemical characterization: Mixtures**
- **Description:**
Mixture of substances listed below with non-hazardous additions.
A combination of bacterial complex and dextrose
- **Dangerous Components:** Non-Regulated Material
- **Additional information:**
Ingredients not precisely identified are proprietary or non-hazardous. Product formulation consists of a range of naturally occurring microorganisms which are known to be non-patogenic to human, livestock and agricultural crops.

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4 First-Aid Measures

- **Description of first aid measures:**
- **General information:** No special measures required.
- **After inhalation:**
Asthmatic type response with sensitive individuals may occur. Product may produce nuisance dust which may irritate respiratory passages. Removal individual to fresh air. Contact physician.
- **After skin contact:**
Slight redness on hands and forearms. Skin sensitization can develop after repeated and/or prolonged contact with human skin.
- **After eye contact:** This material may cause eye irritation. Wash eye thoroughly. Contact physician.
- **After swallowing:**
May lead to nausea or diarrhea. Irritation of the mouth, pharynx, esophagus and stomach can be developed following ingestion. Give two glassed of water to dilute product. Do not induce vomiting. Contact physician.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

5 Fire-Fighting Measures

- **Extinguishing media:**
- **Suitable extinguishing agents:** Water spray, carbon dioxide, dry chemical, foam
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters:**
- **Protective equipment:** No special measures required.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special requirements
- **Conditions for safe storage, including any incompatibilities:**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in the original container.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.

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- **Control parameters:**
- **Components with occupational exposure limits:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** If needed, MSHA-NIOSH approve.
- **Protection of hands:** Wear protective gloves.
- **Eye protection:** Dusting protection goggles recommended in used in a manner which creates dust.
- **Body protection:** Take all precautions to prevent skin contact. Long sleeve clothing recommended.

* 9 Physical and Chemical Properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
 - Form:** Solid
Powdered/granular
 - Color:** White
 - **Odor:** Sweetish
 - **Odor threshold:** Not determined.
 - **pH-value:** Not applicable.
- **Change in condition**
 - Melting point/Melting range:** Not determined.
 - Boiling point/Boiling range:** Undetermined.
- **Flash point:** None
- **Flammability (solid, gaseous):** Not determined.
- **Ignition temperature:**
 - Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
 - Lower:** Not determined.
 - Upper:** Not determined.
- **Vapor pressure:** Not applicable.
- **Density:** Not determined.
- **Relative density:** Not determined.
- **Vapor density:** Not applicable.
- **Evaporation rate:** Not applicable.
- **Solubility in / Miscibility with:**
 - Water:** Insoluble.
- **Partition coefficient (n-octanol/water):** Not determined.

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- **Viscosity:**
 - Dynamic:** Not applicable.
 - Kinematic:** Not applicable.
- **Solvent content:**
 - Organic solvents:** 0.0 %
- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.
- **Additional information:** Strong oxidizers, strong acids or bases may inactivate cultures.

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**
- **Primary irritant effect:**
- **On the skin:** Slight redness may occur
- **On the eye:** May cause slight eye irritation
- **Sensitization:** Skin sensitization can develop after repeated and/or prolonged contact with human skin
- **Additional toxicological information:**
The product is not subject to classification according to internally approved calculation methods for preparations.
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- **Carcinogenic categories:**

- **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

- **NTP (National Toxicology Program):**

None of the ingredients are listed.

- **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water.
- **Other adverse effects:** No further relevant information available.

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13 Disposal Considerations

- **Waste treatment methods:**
- **Recommendation:**
Collect and incinerate or landfill in an approved facility in accordance with local, state and federal requirements.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport Information

- **UN-Number:**
- **DOT, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

· Section 355 (extremely hazardous substances):
None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):
None of the ingredients are listed.

· TSCA (Toxic Substances Control Act):
None of the ingredients is listed.

· **California Proposition 65:**

· Chemicals known to cause cancer:
None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:
None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:
None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:
None of the ingredients are listed.

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· **Carcinogenic categories:**

· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· **TLV (Threshold Limit Value established by ACGIH):**

None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

· **GHS label elements** Non-Regulated Material

· **Hazard pictograms:** Non-Regulated Material

· **Signal word:** Non-Regulated Material

· **Hazard statements:** Non-Regulated Material

· **National regulations:**

The product is subject to be classified according with the latest version of the regulations on hazardous substances.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Date of preparation / last revision:** 05/04/2016 / 3

· **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LD50: Lethal dose, 50 percent

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

LC50: Lethal concentration, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

BEI: Biological Exposure Limit