

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: LifeGard WG
EPA Registration No: 70051-119
Product Type: Wettable Granule
Active Ingredient: *Bacillus mycooides* isolate J
CAS No.: Not applicable

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

Identified uses: Biological Plant Activator
Uses advised against: Any use not specified by the label

1.3. Details of the supplier of the safety data sheet

Name: Certis U.S.A., LLC
Address: 9145 Guilford Road, Suite 175
Columbia, Maryland 21046
U.S.A.
Phone Number: +01 (800) 847-5620
Website: <http://www.certisusa.com>

1.4. Emergency telephone number

Emergency number: +1 800 255-3924

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Hazard Classification: Not classified according to OSHA
Signal Word: None. EPA Signal Word: Caution (see section 15)
Hazard Statements: None.
Pictogram: None.
Precautionary Statements: EPA Precautionary Statements: Harmful if inhaled. Causes moderate eye irritation. Avoid breathing spray mist. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking chewing gum, using tobacco and using the toilet. Remove and wash contaminated clothing before reuse.

2.2 Other Hazards: None.

SECTION 3: Composition/information on ingredients

3.1. Substances

Active Ingredient	CAS No.	Wt. %
<i>B. mycoides</i> isolate J	Not applicable	40

SECTION 4: First aid measures

4.1. Description of first aid measures

Generic measures

If in eyes:	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses if present after the first five minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If inhaled:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

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

Not available.

4.3. Indication of any immediate medical attention and special treatment needed

Not available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media:	All methods
Unsuitable Extinguishing Media:	None known

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: None known

5.3. Advice for firefighters

Protection of Firefighters: None known

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: To avoid exposure wear long sleeved shirt, long pants, socks, shoes, chemical-resistant gloves, protective eyewear.
Applicators and other handlers must use a NIOSH approved

particulate respirator with any N, R, or P filter with NIOSH approval number prefix TC-84A; or a NIOSH approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C.

For emergency responders: Same as above

6.2. Environmental precautions:

Do not apply directly to water or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate. Do not apply when conditions favor drift or runoff from treated areas.

6.3. Methods and material for containment and cleaning up

Methods for Containment: None specified.

Methods for Clean-Up: None specified.

Other Information: If a significant spill occurs, contact CHEM-TEL (800) 255 3924.

6.4. Reference to other sections

See Section 8 for occupational exposure limits and risk management measures. Refer to Section 13 for disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

See Section 8 for occupational exposure limits, risk management measures and personal protection equipment. Refer to Section 13 for disposal considerations.

7.2. Conditions for safe storage, including any incompatibilities

Store in a dry area inaccessible to children. Store in original containers only. Keep container closed when not in use. Store at temperatures below 77°F (25°C). The product should be used within six months from the date of manufacture.

7.3. Specific end use(s)

Use as a biological pesticide only according to label.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OSHA Permissible Exposure Limits (PELs): None determined

ACGIH Threshold Limit Values: None determined

Other Exposure Limits: None determined

8.2. Exposure controls

Engineering Controls:	When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agriculture pesticides (40 CFR 170.240(d)(4-6)), the PPE requirements may be reduced or modified as specified in the WPS.
Personal Protective Equipment	
Eye/Face Protection:	Protective eyewear
Skin Protection:	Long-sleeved shirt and long pants Shoes and socks
Hand Protection:	Chemical resistant gloves
Body Protection:	Long-sleeved shirt and long pants
Respiratory Protection:	Applicators and other handlers must use a NIOSH approved particulate respirator with any N, R, or P filter with NIOSH approval number prefix TC-84A; or a NIOSH approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Brown granules
Odour:	Yeast like
Odour Threshold:	Not available
pH 1% dilution:	5.5-7.5
Melting Point / Freezing Point:	Not applicable
Initial Boiling Point:	Not applicable
Boiling Range:	Not applicable
Flash Point:	Not available
Evaporation Rate:	Not applicable
Flammability (solid, gas):	Not available
Lower & Upper Flammability Limits:	Not available
Vapour Pressure:	Not available
Vapour Density:	Not available
Density:	0.65-0.75 g/cc (CIPAC MT 186)
Solubility:	Not applicable
Partition Coefficient (n-octanol/water):	Not available
Auto-ignition Temperature:	Not determined
Decomposition Temperature:	Not available

Viscosity: Not applicable
Other relevant properties: None

9.2. Other information

Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity	No known hazardous reactions when handled and stored according to stated provisions.
10.2. Chemical stability	Stable when handled and stored according to stated provisions.
10.3. Possibility of hazardous reactions	No known hazardous reactions.
10.4. Conditions to avoid	No known conditions to avoid when handled and stored according to stated provisions.
10.5. Incompatible materials	No known incompatible materials.
10.6. Hazardous decomposition products	No known hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

Toxicological information on the substance or mixture:

LD₅₀ (oral)	> 5000 mg/kg
LD₅₀ (dermal)	> 5050 mg/kg
LC₅₀ (inhalation)	No toxicity expected.

Skin corrosion / irritation: Non-irritating

Eye irritation: Reversibly irritating, all positive effects cleared by 48 hours;
EPA Toxicity Category III

Respiratory or skin sensitization: Not required.

Other information on adverse health effects:

Carcinogenicity

NTP Listed: Not applicable.
IARC Listed: Not applicable.
OSHA: Not applicable.

11.2 Reference to other sections

See Section 4 for symptoms and acute and delayed effects.

SECTION 12: Ecological information

12.1. Toxicity

Test species	Test method	Test substance	LC ₅₀
Northern Bobwhite	Acute Oral	BmJ TGAI	LD ₅₀ > 2250 mg/kg
<i>Oncorhynchus mykiss</i>	96-hour Acute	BmJ TGAI	96-hour LC ₅₀ > 6.22 x 10 ⁶ CFU/mL
<i>Daphnia magna</i>	48-hour Acute	BmJ TGAI	48-hour LC ₅₀ > 6.22 x 10 ⁶ CFU/mL
<i>Apis mellifera</i> L.	Acute Oral	BmJ TGAI	LD ₅₀ = 0.24 g/L

12.2. Persistence and degradability No data available

12.3. Bioaccumulative potential No data available

12.4. Mobility in soil No data available

12.5. Other adverse effects No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal Instructions: Do not contaminate water, food, or feed by storage and disposal. Do not contaminate water by cleaning equipment or disposal of waste.

Pesticide Storage: Store in a dry area inaccessible to children. Store in original container only. Keep container closed when not in use. Store at temperatures below 77°F (25°C). The product should be used within six months from the date of manufacture.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. Wastes resulting from the use of this product may be disposed of onsite or at an approved waste disposal facility.

Container Handling: Non-refillable container. Do not reuse or refill this container. Completely empty container into applicator equipment. Then offer container for recycling if available, or dispose of empty container in a sanitary landfill, by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

SECTION 14: Transportation information

14.1. UN number

Not regulated.

14.2. UN proper shipping name

Not regulated.

14.3. Transport hazard class(es)

Not regulated.

14.4. Packing group

Not regulated.

14.5. Environmental hazards

Not regulated.

14.6. Special precautions for user

Not regulated.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not regulated.

SECTION 15: Regulatory information

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

EPA: This product is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticidal chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION, KEEP OUT OF REACH OF CHILDREN
Harmful if inhaled. Causes moderate eye irritation.

<u>OSHA:</u>	N/A
<u>TSCA Status:</u>	Exempt
<u>CERCLA Reportable Quantity:</u>	N/A
<u>SARA Title III:</u>	
Section 302:	N/A
Section 311/312:	N/A
Section 313:	N/A
<u>RCRA Status:</u>	N/A

SECTION 16: Other information

Disclaimer:

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

SDS Authoring Information:

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SDS Prepared by:	Certis U.S.A. L.L.C.