

CalanthaTM

Version 5/International Issue date: July 31, 2024 Revision date: 07/31/2024

Replaces: Version 4. Issued February 16, 2024

1. IDENTIFICATION

1.1 Product identifier:

Product Name Calantha™ EPA Registration Number 94614-2

1.2 Recommended use of the chemical and restrictions on use

Identified use: Bio-insecticide

1.3 Name, address, and telephone number of the chemical manufacturer

GreenLight Biosciences, Inc. 9 Laboratory Drive, Suite 300 Durham, NC 27709, U.S.A. Telephone: 1-919-446-1743

Email: contact@greenlightbio.com

1.4 24- Hour Emergency Contact: CHEMTREC 800-424-9300 United States

+1-703-527-3887 International

2. HAZARDS INFORMATION

2.1. Classification of the Substance or Mixture

Health: Not hazardous
Environmental: Not hazardous
Physical: Not hazardous

2.2 Label Elements

No GHS Label Required.

2.3 Other Hazards

None known.



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3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixture

Ingredient	CAS # / EINECS #	Concentration	Classification
Ledprona	2433753-68-3	<1.0%	Not Hazardous
Other co-formulants	N/A	~21%	Not Hazardous
Other dissolvable solids	N/A	<0.7%	Not Hazardous
Water	N/A	>75 %	Not Hazardous

4. FIRST AID MEASURES

4.1. Description of first aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: In case of contact with skin, remove contaminated clothing and wash the affected areas with soap and water. Seek medical attention if symptoms develop or persist. Launder contaminated clothing before reuse.

In case of eye contact: Rinse thoroughly with plenty of water for several minutes. Seek medical attention if irritation occurs and persists.

If swallowed: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Seek medical attention if symptoms develop.

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

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. No adverse effects expected. May produce an allergic skin reaction in sensitized individuals.

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

Immediate medical attention should not be required.

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5. FIRE FIGHTING MEASURES

5.1. Extinguishing media

Use extinguishing media appropriate for the surrounding fire.

5.2. Special hazards arising from the substance or mixture.

Not flammable or combustible unless product dries. Dried material will burn under fire conditions and high concentrations of dried dust in the air may present a dust explosion hazard.

5.3. Advice for firefighters

Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing to avoid contact.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Avoid contact with skin, eyes, and clothing. Do not breathe mist.

6.2 Environmental Precautions:

Avoid accidental releases to the environment. Report releases as required by local and national authorities.

6.3 Methods and Material for Containment and Cleaning Up:

Contain spilled material and absorb with inert absorbent material and place in a suitable container for disposal. Decontaminate surfaces according to good laboratory practices. Avoid contact of spilled material with soil and prevent runoff entering surface waterways. If the product dries, collect in a manner that does not generate airborne dust.

6.4 Reference to Other Sections:

See Section 13 for Waste Disposal information.

7. HANDLING AND STORAGE

7.1. Precautions for Safe Handling:

Use suitable protective equipment (See Section 8 "Exposure Controls/ Personal Protection). Avoid breathing vapors or mists. Avoid contact with eyes, skin or clothing. Use with adequate ventilation. Keep container closed. Wash thoroughly after handling. Do not permit the accumulation of dust from dried product to collect in the work area.

Wash thoroughly with soap and water after handling.

7.2. Conditions for Safe Storage, Including any Incompatibilities:

Keep container closed and store at room temperature. No special precautions required.

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7.3 Specific End Use(s):

For use in pesticide formulation.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

8.1 Control Parameters:

Occupational Exposure Limits:

None of the listed ingredients have an OEL.

8.2 Engineering controls

Use with general or adequate local exhaust ventilation to minimize exposure levels. Follow good laboratory standards to minimize exposure.

Respiratory Protection: If needed, an approved respirator with high efficiency particulate filters may be used. A minimum of a NIOSH-approved particulate filtering facepiece respirator with any N*, R, or P filter; or a NIOSH-approved elastomeric particulate respirator with any N, R, or P filter; or a NIOSH-approved powered air purifying respiratory with an HE filter. For higher exposures, a supplied air respirator may be required. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

Skin Protection: Impervious, waterproof gloves and clothing to minimize skin contact.

Eye Protection: Use safety glasses or goggles.

Other Protection: Wash thoroughly with soap and water after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

Physical State:	Liquid	Color:	Clear
Odor	None	Odor Threshold:	Not Available
Solubility in Water:	Readily soluble	Boiling Point/Range:	~100°C (212°F)
Melting Point/Range:	Not Available	Partition Octanol/Water:	Not applicable
pH:	6.5-7.5	Vapor Density:	Not Available
Relative Density:	Approx. 1	Vapor Pressure:	Not Available
Evaporation Rate:	Not Available	Flammability (liquid):	Not flammable
Flammability(solid/gas):	Not Available	Flash Point:	None



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Explosive Limits:	Not Available	Autoignition Temperature:	Not Available
Decomposition Temperature:	Not Available	Kinematic Viscosity:	Not Available
Particle Characteristics:	Not Available		

9.2 Other Information:

Explosive Properties:	None	Oxidizing Properties:	None
Sustained Combustibility:	Not Available		

10. STABILITY AND REACTIVITY

10.1. Reactivity

Not Reactive.

10.2. Chemical Stability

Active ingredient is thermally stable at recommended temperatures and pressures.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Exposure to elevated temperatures can cause product to decompose.

10.5. Incompatible materials

Strong bases, strong oxidizing agents, strong acids.

10.6. Hazardous decomposition products

No data available



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11. POTENTIAL HEALTH EFFECTS

11.1. Toxicological Information

Inhalation: May cause slight respiratory tract irritation.

Ingestion: May cause gastrointestinal effects if swallowed. Product is not acutely toxic.

Skin: Product is not irritating, and a weak sensitizer based on testing. No adverse effects are expected.

Eyes: May cause slight eye irritation. Product is minimally irritating based on testing.

Chronic Health Effects: None known.

Irritation: Product is not irritating to skin and minimally irritating to eyes in laboratory testing. Severity of reactions are not sufficient for classification.

Corrosivity: Product is not corrosive to eyes or skin in laboratory testing.

Sensitization: Product is a weak sensitizer in laboratory testing. Severity of reaction is not sufficient for classification.

Carcinogenicity: None of the components is listed as a carcinogen or suspected carcinogen by IARC, ACGIH, NTP or OSHA.

Germ Cell Mutagenicity: Based on available data, the classification criteria are not met.

Reproductive Toxicity: Based on available data, the classification criteria are not met.

Numerical Measures of Toxicity:

Oral rat LD50 >5000 mg/kg; Dermal rat LD50 >5050 mg/kg; Inhalation rat LC50 >5.06 mg/L

Specific Target Organ Toxicity Single Exposure (STOT-SE): Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity Repeated Exposure (STOT-RE): Based on available data, the classification criteria are not met.

Aspiration Toxicity: Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties: Based on available data, the classification criteria are not met.

Other information: None available.

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12. ECOLOGICAL INFORMATION

12.1 Toxicity

Honeybee: Practically non-toxic; parasitic wasp, green lacewing, and 7-spotted ladybird LR₅₀ >130 g ai/ha; *T. pyri* LR₅₀ >60 g ai/ha

12.2 Persistence and Degradability: Half-life in soil, sediment, and water: <3 days

12.3 Bio-accumulative Potential: No data available

12.4 Mobility in Soil: No data available

12.5 Results of PBT and vPvB Assessment: Not required

12.6 Endocrine disrupting properties: None known.

13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Dispose of product in accordance with federal, state, and local regulations.

14. TRANSPORATION INFORMATION

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
DOT	None	Not Regulated	None	None	Not applicable
ADR/RID	None	Not Regulated	None	None	Not applicable
IMDG	None	Not Regulated	None	None	Not applicable
IATA/ICAO	None	Not Regulated	None	None	Not applicable

14.6 Special Precautions for User: Not applicable.

14.7 Transport in Bulk According to IMO Instruments: Not applicable.



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15. REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture:

U.S. Federal Regulations

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): This product is not subject to reporting under CERCLA. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

Toxic Substances Control Act (TSCA): This product is not regulated under TSCA.

Clean Water Act (CWA): This material is not regulated under the Clean Water Act.

Clean Air Act (CAA): This material is not regulated under the Clean Air Act.

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA Section 311/312 (40 CFR 370) Hazard Categories: See OSHA Hazard Classification in Section 2

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372): None

Federal Insecticide, Fungicide and Rodenticide Act:

EPA Registration Number: 94614-2

This chemical is a pesticide product registered by the 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, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

Pesticide Label:

CAUTION. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Keep out of reach of children.

User should: Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then was thoroughly and put on clean clothing. Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS:



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For terrestrial use only 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 water or rinsate.

International Regulations

Canadian Environmental Protection Act: Contact GreenLight Biosciences for more information regarding approved product uses in Canada.

EU REACH: Contact GreenLight Biosciences for more information regarding REACH status.

15.2 Chemical Safety Assessment: Not required.

16. OTHER INFORMATION

Date of Revision: 07/31/2024

Full text of classification abbreviations used in Section 2 and 3:

None

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