
SECTION 1 IDENTIFICATION

1.1. Product identifier

Product form : Mixture
Trade name : Calantha™

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Bio-insecticide

1.4. Supplier's details

GreenLight Biosciences, Inc.
9 Laboratory Drive
Durham, NC 27709
T 1-919-446-1743
contact@greenlightbio.com

1.5. Emergency phone number

Emergency number : For Hazardous Materials or Dangerous Goods Incident Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night: 1-800-424-9300 (Toll Free, USA) / 703-527-3887 (Virginia, USA) CCN 1018598
Back-up Emergency Number: +1 703-741-5970 (Washington, DC)
+32 2 808 32 37 (Brussels. French, Flemish, and German)

SECTION 2 HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. Label elements

GHS US labeling

No labeling applicable

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Water	CAS-No.: 7732-18-5	> 75	Not classified
Other co-formulants	CAS-No.: N/A	≈ 21	Not classified
Ledprona	CAS-No.: 2433753-68-3	< 1	Not classified
Other dissolvable solids	CAS-No.: N/A	< 0.7	Not classified

Full text of hazard classes and H-statements : see section 16

SECTION 4 FIRST AID MEASURES

4.1. Description of necessary first-aid measures

First-aid measures general	: First aider: Pay attention to self-protection. Never give anything by mouth to an unconscious person. Give artificial respiration if necessary. Induce artificial respiration with mask fitted with one-way valve or other suitable device but not mouth-to-mouth. If you feel unwell, seek medical advice.
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin areas with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after skin contact	: Not expected to present a significant skin hazard under anticipated conditions of normal use.

Symptoms/effects after eye contact	: Not expected to present a significant eye contact hazard under anticipated conditions of normal use.
Symptoms/effects after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: FIRE-FIGHTING MEASURES

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use extinguishing agent suitable for surrounding fire.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: 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.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon dioxide. Carbon monoxide.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. Move containers from fire area if it can be done without personal risk. Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid all personal contact including breathing in the mist, spray, vapors. Do not take actions involving personal risks. Absorb spillage to prevent material-damage. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.
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For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Evacuate the danger area. If outdoors, move to an area upwind of the danger area. If possible without taking personal risks, Remove ignition sources, ventilate area. Prevent other non-emergency personnel from entering the danger area.

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According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Measures in case of dust release : Where excessive dust may result, use approved respiratory protection equipment.

For emergency responders

Protective equipment : Wear the recommended personal protective equipment. Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

Environmental precautions : Avoid negligent or unplanned release to the environment.

6.2. Methods and materials for containment and cleaning up

For containment : Contain with non-combustible inert absorbent. Stop leak, if possible without risk.

Methods for cleaning up : Take up in non-combustible inert absorbent and place into container for disposal. Decontaminate surfaces and equipment with water and detergent. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

For further information refer to section 8: "Exposure controls/personal protection", For further information refer to section 13

SECTION 7 HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing mist, spray, vapors. Take precautionary measures against static discharge.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including incompatibilities

Storage conditions : Store in a cool, dry and well-ventilated area away from incompatible substances. Keep container closed when not in use. Do not store near food, foodstuffs, drugs, or potable water supplies.

Incompatible materials : Strong acids, strong bases and strong oxidants.

Storage temperature : 40 – 50 °C / 104 – 122 °F

Specific end uses : For use in pesticide formulation.

Packaging materials : Store always product in container of same material as original container.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Handle in accordance with good industrial hygiene and safety procedures. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Environmental exposure controls	: Avoid negligent or unplanned release to the environment. Take measures to reduce or limit air emissions and releases to soil and the aquatic environment.

8.3. Individual protection measures, such as personal protective equipment**Personal protective equipment:**

Personal protective equipment should be chosen according to national standards and in discussion with the supplier of the protective equipment. Wear recommended personal protective equipment.

Hand protection:

Wear protective gloves

Eye protection:

No special eye protection equipment recommended under normal conditions of use. If material is handled such that it could be splashed into eyes, protective eyewear is recommended.

Skin and body protection:

Wear suitable protective clothing. Body protection should be chosen depending on activity and possible exposure

Respiratory protection:

No respiratory protection needed under normal use conditions. In case of insufficient ventilation, wear suitable respiratory equipment. High efficiency particulate air filter (HEPA filter)

Personal protective equipment symbol(s):

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear.
Color	: No data available
Odor	: No data available
Odor threshold	: No data available

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pH	: 6.5 – 7.5
Melting point	: No data available
Freezing point	: No data available
Boiling point	: ≈ 100 °C / 212 °F
Flash point	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: ≈ 1
Solubility	: Readily soluble.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Explosion limits	: No data available
Particle characteristics	: No data available

Ledprona

Particle characteristics	No data available
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Water

Particle characteristics	No data available
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Other co-formulants

Particle characteristics	No data available
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Other dissolvable solids

Particle characteristics	No data available
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9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 STABILITY AND REACTIVITY

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

10.4. Conditions to avoid

Incompatible materials.

10.5. Incompatible materials

Strong acids, strong bases and strong oxidants.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates: Carbon dioxide. Carbon monoxide.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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LD50 oral rat	> 5000 mg/kg body weight
LD50 dermal rat	> 5050 mg/kg body weight
LC50 Inhalation - Rat	> 5.06 mg/l

Water

LD50 oral rat	> 10000 mg/kg body weight
LD50 dermal rat	> 10000 mg/kg body weight
LD50 dermal rabbit	> 10000 mg/kg body weight
LC50 Inhalation - Rat	> 100 mg/l/4h

Skin corrosion/irritation	: Not classified pH: 6.5 – 7.5
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Additional information	Slightly irritating to rabbits on cutaneous application
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Serious eye damage/irritation	: Not classified pH: 6.5 – 7.5
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Additional information	Not irritating to rabbits on ocular application
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According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Respiratory or skin sensitization : Not classified (Based on available data, the classification criteria are not met)

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Local Lymph Node Assay, mouse Product is a weak skin sensitizer in laboratory testing.

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (None of the components is listed as a carcinogen or suspected carcinogen by IARC, ACGIH, NTP or OSHA.)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

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Viscosity, kinematic No data available

Ledprona

Viscosity, kinematic No data available

Water

Viscosity, kinematic No data available

Other co-formulants

Viscosity, kinematic No data available

Other dissolvable solids

Viscosity, kinematic No data available

Symptoms/effects after inhalation : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after skin contact : Not expected to present a significant skin hazard under anticipated conditions of normal use.

Symptoms/effects after eye contact : Not expected to present a significant eye contact hazard under anticipated conditions of normal use.

Symptoms/effects after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

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According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

SECTION 12 ECOLOGICAL INFORMATION

12.1. Ecotoxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

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Persistence and degradability	Half-life in soil, sediment, and water: <3 days.
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Ledprona

Persistence and degradability	Not rapidly degradable
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Water

Persistence and degradability	Rapidly degradable
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Other co-formulants

Persistence and degradability	Not established.
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Other dissolvable solids

Persistence and degradability	Not established.
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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No

SECTION 13 DISPOSAL CONSIDERATIONS

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.

Product/Packaging disposal recommendations	: Disposal must be done according to official regulations. Refer to all applicable national, international and local regulations or provisions.
Additional information	: Do not re-use empty containers.
Ecological waste information	: Avoid negligent or unplanned release to the environment.

SECTION 14 TRANSPORT INFORMATION

In accordance with DOT / IMDG / IATA

DOT	IMDG	IATA
14.1. UN number		
Not regulated for transport		
14.2. Proper Shipping Name		
Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
14.4. Packing group		
Not regulated	Not regulated	Not regulated
14.5. Environmental hazards		
	Not regulated	
No supplementary information available		
14.6. Transport in bulk		
Not applicable		
14.7. Special precautions for user		
DOT		
Not regulated		
IMDG		
Not regulated		
IATA		
Not regulated		

SECTION 15 REGULATORY INFORMATION

15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

Ledprona	CAS-No. 2433753-68-3	< 1%
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According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Other co-formulants	CAS-No. N/A	≈ 21%
Other dissolvable solids	CAS-No. N/A	< 0.7%

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

FIFRA Labelling

EPA Registration Number 94614-2

This chemical is a pesticide product registered by the U.S. 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. The following is the hazard information as required on the pesticide label.

FIFRA Signal Word	Caution
FIFRA Precautionary Statement	Keep out of reach of children.
FIFRA Human Health Hazards	Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. User should: Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.
FIFRA Environmental Hazards	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.

15.2. International regulations

CANADA

Ledprona (2433753-68-3)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

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According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

National regulations

Water (7732-18-5)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16 OTHER INFORMATION

According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Issue date : 6/5/2025

Other information : **DISCLAIMER:** The information contained herein this Safety Data Sheet (SDS) is provided in good faith and is to the best of GreenLight Biosciences' knowledge and belief, accurate to the specific material designated herein as of the effective date shown above, and does not purport to be all inclusive, and shall only be used as a guide, and may not be valid for use of said material in combination with any other materials or in any process. GREENLIGHT BIOSCIENCES MAKES NO REPRESENTATIONS, GUARANTEES, OR WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE, OR ANY OTHER WARRANTY AS TO THE SAFETY OF THE GOODS, OR CONCERNING THE INFORMATION'S ACCURACY, RELIABILITY, OR COMPLETENESS. User is solely responsible for determining whether GreenLight Biosciences' material is fit for a particular purpose and suitable for User's method of use or application. It is the User's responsibility to ensure that User's activities comply with all federal, state, provincial or local laws. The information presented herein pertains only to the material as shipped. GreenLight Biosciences shall not be held liable for any damage whatsoever resulting from handling and/or from contact with the above referenced material nor shall GreenLight Biosciences be liable for results obtained or for any incidental or consequential damages arising from the use of this information or for any loss or damage that may occur from the use of this information or material. No freedom from infringement of any patent, copyright or trademark is to be inferred. Not for drug, household, or other uses.

Indication of changes:

Physical and chemical properties.

Section	Changed item	Comments
7.2	Storage conditions	Modified Storage temperature
9	Physical	Modified

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Safety Data Sheet

According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Updated chemical properties

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.