Safety Data Sheet



according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 6/5/2025 Revision date: 10/22/2025 Supersedes version of: 6/21/2025 Version: 1.2

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product form : Mixture

Trade name : Calantha™

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

Relevant identified uses

Use of the substance/mixture : Bio-insecticide

1.3. Details of the supplier of the safety data sheet

Supplier Distributor

GreenLight Biosciences, Inc. Greenlight Biosciences España S.L.

9 Laboratory Drive Ctra N-IV km 566

27709 Durham, NC 41720 Los Palacios y Villafranca

T 1-919-446-1743 Espana

contact@greenlightbio.com

1.4. Emergency telephone 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: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH Annex II

SECTION 4: FIRST AID MEASURES

4.1. Description of 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
Ethat aid an arrange of the ball at an	device but not mouth-to-mouth. If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. 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 or a doctor if you feel unwell.
First-aid measures for first aider	: First aid workers will be equipped with suitable personal protective
	equipment.

4.2. Most important symptoms and effects, both 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 any immediate medical attention and special treatment needed

Treat symptomatically.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing agent suitable for surrounding fire. Water spray. Dry

powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

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. Advice for firefighters

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 the 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, vapours.

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.

For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area. 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.

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.

6.2. Environmental precautions

Avoid negligent or unplanned release to the environment.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

6.3. Methods and material for containment and cleaning up

For containment : Contain with non-combustible inert absorbent. Stop leak without risks if

possible. Contain any spills with dikes or absorbents to prevent migration

and entry into sewers or streams.

Methods for cleaning up : Take up liquid spill into absorbent material. 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.

6.4. Reference to other sections

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

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions

of normal use.

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, vapours. 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 any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.

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 : $40 - 50 \,^{\circ}\text{C} / 104 - 122 \,^{\circ}\text{F}$

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

7.3. Specific end use(s)

For use in pesticide formulation.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No additional information available

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

8.2. Exposure controls

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.

Personal protection 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.

Personal protective equipment symbol(s):



Eye and face protection

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 protection

Skin and body protection:

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

Hand protection:

Wear protective gloves

Respiratory protection

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)

Environmental exposure controls

Environmental exposure controls:

Take measures to reduce or limit air emissions and releases to soil and the aquatic environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : Light yellow.

Appearance : Clear.

Odour : None.

Odour threshold: Not availableMelting point: Not applicableFreezing point: Not availableBoiling point: $\approx 100 \,^{\circ}\text{C} / 212 \,^{\circ}\text{F}$ Flammability: Not flammable

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Explosive properties : Not explosive.

Oxidising properties : Not oxidising.

Lower explosion limit : Not available

Upper explosion limit : Not available

Flash point : Not applicable

Auto-ignition temperature : Not available

Decomposition temperature : Not available

pH : 7.22

pH solution : 7.24 1% solution
Viscosity, kinematic : Not available
Solubility : Readily soluble.

Partition coefficient n-octanol/water (Log : Not available

Kow)

Vapour pressure : Not available
Vapour pressure at 50°C : Not available
Density : Not available

Relative density : ≈ 1

Relative vapour density at 20°C : Not available Particle characteristics : Not applicable

9.2. Other information

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.

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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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

Calantha™

LD50 oral rat > 5000 mg/kg bodyweight
LD50 dermal rat > 5050 mg/kg bodyweight

LC50 Inhalation - Rat > 5.06 mg/l

Skin corrosion/irritation : Not classified

pH: 7.22

Calantha™

Additional information Slightly irritating to rabbits on cutaneous application

Serious eye damage/irritation : Not classified

pH: 7.22

Calantha™

Additional information Not irritating to rabbits on ocular application

Respiratory or skin sensitisation : Not classified

Calantha™

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

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

11.2. Information on other hazards

No additional information available

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause

long-term adverse effects in the environment.

Hazardous to the aquatic environment,

short-term (acute)

: Not classified

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Hazardous to the aquatic environment,

: Not classified

long-term (chronic)

12.2. Persistence and degradability

Calantha™

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

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

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

Product/Packaging disposal

recommendations

A 1 1111

: Disposal must be done according to official regulations.

: 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 ADR / IMDG / IATA / ADN / RID

ADR IMDG IATA ADN RID

14.1. UN number or ID number

Not regulated for transport

14.2. UN proper shipping name

Not regulated Not regulated Not regulated Not regulated Not regulated

14.3. Transport hazard class(es)

Not regulated Not regulated Not regulated Not regulated Not regulated

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

ADR	IMDG	IATA	ADN	RID
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: REGULATORY INFORMATION

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

EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

National regulations

Germany

Air Quality Control (TA Luft)	Air Quality Control (TA Luft)

Category Class Applicable on Local name Category Class Applicable on Local name

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms:

ACGIH			American Conference of Government Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate	ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor	BCF	Bioconcentration factor
BLV	Biological limit value	BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)	BOD	Biochemical oxygen demand (BOD)
CAS- No.	Chemical Abstract Service number	CAS-No.	Chemical Abstract Service number

$Calantha^{TM}$

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:

	OL D	01 15 15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008	CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
Chemical oxygen demand (COD)	COD	Chemical oxygen demand (COD)
Chemical safety assessment	CSA	Chemical safety assessment
Derived Minimal Effect level	DMEL	Derived Minimal Effect level
Derived-No Effect Level	DNEL	Derived-No Effect Level
European Community number	EC-No.	European Community number
Median effective concentration	EC50	Median effective concentration
Endocrine disruptor	ED	Endocrine disruptor
European Standard	EN	European Standard
European waste catalogue	EWC	European waste catalogue
International Agency for Research on Cancer	IARC	International Agency for Research on Cancer
International Air Transport Association	IATA	International Air Transport Association
International Maritime Dangerous Goods	IMDG	International Maritime Dangerous Goods
Median lethal concentration	LC50	Median lethal concentration
Median lethal dose	LD50	Median lethal dose
Lowest Observed Adverse Effect Level	LOAEL	Lowest Observed Adverse Effect Level
Partition coefficient n- octanol/water (Log Kow)	Log Kow	Partition coefficient n- octanol/water (Log Kow)
Partition coefficient n- octanol/water (Log Pow)	Log Pow	Partition coefficient n- octanol/water (Log Pow)
maximum workplace concentration	MAK	maximum workplace concentration
No-Observed Adverse Effect Concentration	NOAEC	No-Observed Adverse Effect Concentration
No-Observed Adverse Effect Level	NOAEL	No-Observed Adverse Effect Level
No-Observed Effect Concentration	NOEC	No-Observed Effect Concentration
Not Otherwise Specified	N.O.S.	Not Otherwise Specified
Organisation for Economic Co- operation and Development	OECD	Organisation for Economic Co- operation and Development
Occupational Exposure Limit	OEL	Occupational Exposure Limit
Occupational Safety Health	OSHA	Occupational Safety Health
	Chemical oxygen demand (COD) Chemical safety assessment Derived Minimal Effect level Derived-No Effect Level European Community number Median effective concentration Endocrine disruptor European Standard European waste catalogue International Agency for Research on Cancer International Air Transport Association International Maritime Dangerous Goods Median lethal concentration Median lethal dose Lowest Observed Adverse Effect Level Partition coefficient n- octanol/water (Log Kow) Partition coefficient n- octanol/water (Log Pow) maximum workplace concentration No-Observed Adverse Effect Concentration No-Observed Adverse Effect Level No-Observed Adverse Effect Level No-Observed Effect Concentration Not Otherwise Specified Organisation for Economic Co- operation and Development	Regulation; Regulation (EC) No 1272/2008 Chemical oxygen demand (COD) Chemical safety assessment CSA Derived Minimal Effect level DMEL Derived-No Effect Level DNEL European Community number EC-No. Median effective concentration EID European Standard European Waste catalogue European waste catalogue European waste catalogue European Waste catalogue International Agency for Research on Cancer International Air Transport Association International Maritime Dangerous Goods Median lethal concentration LC50 Median lethal dose LD50 Lowest Observed Adverse Effect Level Partition coefficient n- octanol/water (Log Kow) Partition coefficient n- octanol/water (Log Pow) maximum workplace concentration No-Observed Adverse Effect Concentration No-Observed Effect Concentration No-Observe

$Calantha^{TM}$

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:

PBT	Persistent Bioaccumulative Toxic	PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration	PNEC	Predicted No-Effect Concentration
PPE	Personal protection equipment	PPE	Personal protection equipment
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet	SDS	Safety Data Sheet
STP	Sewage treatment plant	STP	Sewage treatment plant
TF	Technical function	TF	Technical function
ThOD	Theoretical oxygen demand (ThOD)	ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit	TLM	Median Tolerance Limit
TWA	Time Weighted Average	TWA	Time Weighted Average
VOC	Volatile Organic Compounds	VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative	vPvB	Very Persistent and Very Bioaccumulative
UFI	Unique Formula Identifier	UFI	Unique Formula Identifier

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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 INFORMATON'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 fringement of any patent, copyright or trademark is to be inferred. Not for drug, household, or other uses.

The classification complies with

: ATP 12

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.