

SAFETY DATA SHEET

LAST CALL™ M.N.B.

1. IDENTIFICATION

Product code: LCMNB
Product name: Last Call™ M.N.B.
Chemical contents: Permethrin insecticide and macadamia nut borer moth pheromone: (Z)-8-dodecenyl acetate

Product description, recommended uses and restrictions:

This product consists of macadamia nut borer (*Thaumatotibia batrachopa*) pheromone and permethrin insecticide in a grease type formulation. This product is intended for use in agricultural crops as a control measure for the macadamia nut borer.

Supplier: Insect Science (Pty) Ltd.
 9 Industria Street, New Industrial Area, Tzaneen, 0850, South Africa

Telephone: 015 307 1391 / 015 065 0199
Emergency number: 015 307 1391 / 015 065 0199 (office hours)
In case of poisoning: Griffon Poison Information Centre 082 446 8946
 Tygerberg Hospital 021 931 6129
 Poison Emergency Enquiries 021 689 5227

2. HAZARD IDENTIFICATION

Classification of substance or mixture according to GHS; Regulation (EC) No 1272/2008

Hazard Class	Hazard Category	Hazard Statement
Health		
Skin Sensitizer	Category 1	H317
Skin Irritation	Category 3	H316
Environment		
Aquatic Acute	Category 1	H400
Aquatic Chronic	Category 1	H410

Label elements

Pictograms:



Signal word: Warning



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Hazard statement(s):

H317: May cause an allergic skin reaction.

H316: Causes mild skin irritation

H400: Very toxic to aquatic life

H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P261: Avoid breathing vapours

P272: Contaminated work clothing should not be allowed out of the workplace.

P280: Wear protective gloves.

P302+P352: IF ON SKIN: Wash with plenty of water.

P333+P317: If skin irritation or rash occurs: Get medical help.

P362+P364: Take off contaminated clothing and wash it before reuse.

P273: Avoid release into the environment.

P391: Collect spillage.

P501: Dispose of contents / container in accordance with local regulations.

Supplemental hazard statement(s):

H302: Harmful if swallowed

H332: Harmful if inhaled

H319: Causes serious eye irritation

H335: May cause respiratory irritation

Other hazards: Not known

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / mixture:	Mixture
Substance name:	Permethrin
CAS registry number:	52645-53-1
Formula:	$C_{21}Cl_2H_{20}O_3$ or $C_{21}H_{20}Cl_2O_3$
Synonyms:	(3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropane-1-carboxylate
Substance name:	(Z)-8-dodecenyl acetate
CAS registry number:	28079-04-1
Formula:	$C_{14}H_{26}O_2$
Synonyms:	(Z)-8-dodecen-1-ol acetate

Hazardous ingredients according to GHS

Component	CAS registry number	Concentration	Classification 1272/2008	EC
Permethrin	52645-53-1	6 %	Acute Tox 4 (H302) Skin Sens. 1 (H317) Acute Tox. 4 (H332) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	
UV adsorbent	125304-04-3	< 80 %	Aquatic Chronic 4 (H413)	
Amorphous silica	112945-52-5	< 5 %	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	

4. FIRST-AID MEASURES

General advice

Ingestion: If swallowed, wash mouth with water if person is conscious. Never give anything by mouth to an unconscious person. Obtain medical attention if necessary.

Skin contact: This product is a skin sensitizer and may cause mild skin irritation or an allergic skin reaction. In case of contact, remove contaminated clothing if applicable and wash area of exposure with non-abrasive soap and copious amounts of water for several minutes.

Consult a physician if irritation persists.

Inhalation: This product is not expected to be acutely toxic by inhalation. If inhaled, remove the source of contamination or move victim to fresh air. Obtain medical attention if necessary.

Eye contact: Immediately flush eyes with clean water for several minutes, holding the eyelids open. If present, remove contact lenses after 5 minutes. Continue rinsing. Consult a physician if irritation persists.

Most important symptoms and effects, both acute and delayed: The product is considered a skin sensitizer and irritant and may cause an allergic skin reaction or temporary skin irritation.

Indication of any immediate medical attention and special treatment needed: There is no specific antidote available. Treat symptomatically and supportively.

5. FIRE-FIGHTING MEASURES

This material is not flammable.

Extinguishing media

Suitable: Where possible, extinguish fire with dry chemical powder, foam or carbon dioxide.

Unsuitable: This material is considered to be an aquatic pollutant. When using water spray, avoid run-off from site. Water can be used to cool containers.

Specific hazards arising from combustion: Carbon monoxide and carbon dioxide.



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Special precautions for fire-fighters: Remove spectators from the area. Stay upwind of fire to avoid inhalation of hazardous vapours and fumes. Wear self-contained breathing apparatus and protective clothing where necessary. Always fight fires from the maximum distance, especially in the case of hazardous material. Contain fire control agents for later disposal. This material is an aquatic pollutant, avoid pollution of waterways.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures.

Wear impermeable gloves and protective equipment when handling the product to avoid contact with skin. Avoid breathing vapours.

Environmental precautions: This material is considered to be an aquatic pollutant, both acute and chronic. Avoid release into the environment. Keep away from drains, surface and ground water. In the case of significant water pollution, report contamination to local authorities.

Methods and materials for containment and cleaning up: Dyke spilled material for containment. Place material into a dry, clean container for subsequent disposal. Label containers with contents and dispose of according to local regulations. Do not flush spilled material into drains. Burning or dumping of this material is prohibited. Clean up residual material by using adsorbent materials or decontamination techniques. Avoid contamination of waterways.

7. HANDLING AND STORAGE

Precautions for safe handling: KEEP OUT OF REACH OF CHILDREN AND ANIMALS. Before handling, ensure that all hazards are understood and the correct personal protective equipment is used (refer to section 8 of this SDS). This product is a skin sensitizer and may cause an allergic skin reaction and skin irritation. Avoid contact with skin. Wash hands thoroughly after use and before eating, drinking, smoking or using the toilet. Wash contaminated clothing after use.

Conditions for safe storage, including any incompatibilities: Store containers locked away and out of reach of uninformed persons or animals. Store the product in its original, labelled, closed container in a cool, well-ventilated area, away from heat or open flames. Never transfer this product to another container for storage. This product is considered an aquatic pollutant and should be stored away from drains and waterways. Always comply with local regulations.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Permissible concentrations:

Chemical	CAS number	PEL (8-hour TWA)	Reference
Alpha-Alumina	1344-28-1	15 mg/m ³ (dust)	OSHA

		5 mg/m ³ (respirable fraction)	
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*Permissible exposure limit, 8-hour time weighted averages (TWA)

Engineering controls: Adequate ventilation is essential. The appropriate measures that need to be implemented at a worksite will depend on the way in which the product is used and on the extent of worker exposure. Provide local exhaust ventilation systems to maintain airborne concentrations below permissible exposure limits.

Personal protective equipment:

Eye / face protection: Avoid touching eyes when handling the product.

Skin protection: Avoid contact with skin. Handle with impermeable gloves.

Respiratory protection: Avoid breathing mist or vapours.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Grease-like / liquid paste

Colour: Clear to turbid

Odour: Characteristic pheromone odour

Melting point / freezing point: No data available

Boiling point or initial boiling point and boiling point range: > 174 °C

Flammability: Not flammable

Lower and upper explosion limit / flammability limit: No data available

Flash point: > 101 °C

Auto-ignition temperature: Does not auto-ignite in the range of temperatures tested

Decomposition temperature: No data available

pH: 5 – 9

Kinematic viscosity: 19 800 – 23 800 mPa.s (20 °C, range of shear RV 15 rps)

Solubility: Insoluble in water, soluble in organic solvents

Partition coefficient n-octanol / water (log value): No data available

Vapour pressure: 2.4 x 10⁻⁵ Pa (25 °C)

Density and/or relative density: 1.07 g/cm³ (20 °C)

Relative vapour density: No data available

Particle characteristics: No data available

10. STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical stability: Stable at recommended storage conditions.

Possibility of hazardous reactions: No data available.

Conditions to avoid: Open flames.

Incompatible materials: Strong acids, bases, oxidizing agents and reducing agents

Hazardous decomposition products: No data available.

11. TOXICOLOGICAL INFORMATION

Acute toxicity (calculated according to GHS)

Oral > 5000 mg/kg (rat)

Dermal > 5000 mg/kg (rabbit)

Inhalation > 20 mg/L (rat)

Skin corrosion / irritation: Causes mild skin irritation.

Eye damage / irritation: May cause eye irritation.

Respiratory or skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity: Not considered a mutagen.

Carcinogenicity: Not considered a carcinogen.

Reproductive toxicity: Not considered a reproductive toxin.

Specific target organ toxicity single exposure: Not considered a target organ toxicant after single exposure.

Specific target organ toxicity repeated exposure: Not considered a target organ toxicant after multiple exposure.

Aspiration hazard: Not considered an aspiration hazard.

12. ECOLOGICAL INFORMATION

This product is toxic to aquatic life with long lasting effects.

Ecotoxicity (for permethrin)

Fish

LC ₅₀ (96h)	Rainbow trout	0.91 µg/L
	Bluegill sunfish	1.4 µg/L

Birds

Acute oral LD ₅₀	Mallard ducks	>4640 mg/kg
Dietary LC ₅₀ (8d)		>8039 mg/kg diet
	Quail	>5620 mg/kg diet

Daphnia

LC ₅₀ (48h)		3.5 µg/L
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Algae

EC ₅₀ (96h)	<i>Selenastrum capricornutum</i>	>9.1 mg/L
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Bees

LD ₅₀		79 ng/bee (oral)
		51 ng/bee (contact)

Worms

LC ₅₀ (14d)	Earthworms	>1290 mg/kg soil
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Persistence and degradability: In soil, undergoes microbial degradation within 1-2 weeks.

Bio-accumulative potential: DT₅₀ (lab., aerobic) 21 – 25 d, (anaerobic) 31 – 36 d. In field, DT₅₀ < 23 d. Soil photolysis DT₅₀ 9 d.



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Mobility in soil: K_d 3790-30000, K_{oc} $4.6 \times 10^5 - 1.63 \times 10^7$ cm³/g, confirms strong adsorption by soil colloids and no risk of leaching.

Plants: No uptake through leaves and roots – non-systemic compound. No major metabolites, except in oily crops, where *trans*-deltamethrin is part of the residue definition.

Other adverse effects: Toxic to fish under laboratory conditions, however not expected to be toxic to fish under natural conditions. Toxic to bees.

13. DISPOSAL CONSIDERATIONS

Disposal methods: Open dumping or burning of this pesticide is prohibited. Containers should not be re-used for any other purpose. Containers should be perforated and triple rinsed before disposal. According to the regulations regarding extended producer responsibility (National Environmental Management: Waste Act, 2008; Act No. 59 of 2008), the empty container of this product needs to be incinerated or recycled by an approved recycler. Unused product that has expired needs to be incinerated. This product is considered to be an aquatic pollutant and should not be disposed of where it could contaminate waterways.

14. TRANSPORT INFORMATION

UN number:	3077
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Permethrin)
Transport hazard class:	9
Packaging group, if applicable:	III
Environmental hazards:	Marine pollutant
Special precautions for user:	None

15. REGULATORY INFORMATION

Safety, health and environmental regulations / legislation used:

Regulations for hazardous chemical agents, 2021. Occupational Health and Safety Act, 1993.

OSHA 1993 Regulations for hazardous chemical substances.

EU regulation: Regulation EC1272/2008 (EU-GHS/CLP).

United Nations Globally Harmonized System of Classification, ninth revised edition, 2021.

16. OTHER INFORMATION

Packaging: Packaged as a ready-to-use formula in plastic tubes.

Compiled: June 2022

Reviewed: June 2022

Revision number: 1

Next revision date: June 2027

For more information, please contact the registration holder.

END OF SDS.
