



INSECT SCIENCE®
The Science of Entomology

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SAFETY DATA SHEET

LAST CALL™ F.C.M.

SECTION 1. PRODUCT IDENTIFICATION

Product Code: LCFCM
Product Name: Last Call™ F.C.M.
Chemical contents: False Codling Moth Pheromone ((Z)-8-Dodecenyl acetate, (E)-8-dodecenyl acetate and (E)-7-dodecenyl acetate) and deltamethrin

Product description, recommended uses and restrictions:

This product consists of False Codling Moth Pheromone ((Z)-8-Dodecenyl acetate, (E)-8-dodecenyl acetate and (E)-7-dodecenyl acetate) and deltamethrin in a grease type formulation. This product is intended for use in agricultural crops as a control measure for the False Codling Moth (*Thaumatotibia leucotreta*).

Supplier's details: Insect Science (Pty) Ltd
9 Industria Street
New Industrial area
Tzaneen
0850, South Africa
Tel: 015 307 1391 / 015 065 0199
Fax: 087 809 5342

Emergency Number: 015 307 1391 / 015 065 0199 (Office hours)
In case of Poisoning: Poison Information Centre 082 446 8946
Tygerberg Hospital: 021 931 6129
Poison Emergency Enquiries 021 689 5227

SECTION 2. COMPOSITION / INFORMATION ON ACTIVE INGREDIENTS

Classification of substance or mixture:

Classification of substance or mixture according to GHS

(Regulation (EC) No 1272/2008):

May be harmful if swallowed (Category 5), H303

Very toxic to aquatic life (Category Acute 1), H400

Very toxic to aquatic life with long lasting effects (Category Chronic 1), H410

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Label elements:

Pictogram



Signal word

Warning

Hazard statement(s)

H303 May be harmful if swallowed
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P264 Wash hands thoroughly after handling
P273 Avoid release to the environment
P280 Wear protective gloves / eye protection.
P312 Call a poison center/doctor if you feel unwell

Supplemental Hazard

Statements

None

Other hazards

None

SECTION 3. COMPOSITION/INFORMATION ON ACTIVE INGREDIENT

Substance Name: (E)-8-Dodecenyl acetate
CAS Registry Number: 38363-29-0
EINECS: 253-904-4
Formula: $C_{14}H_{26}O_2$
Synonyms: E8-12Ac
8-dodecen-1-ol, acetate, (8E)-

Substance Name: (Z)-8-Dodecenyl acetate
CAS Registry Number: 28079-04-1
EINECS: 248-823-6
Formula: $C_{14}H_{26}O_2$
Synonyms: Z8-12Ac
8-dodecen-1-ol, acetate, (8Z)-

Substance Name: (E)-7-Dodecenyl acetate
CAS Registry Number: 16695-41-3
EINECS: 240-725-1
Formula: $C_{14}H_{26}O_2$
Synonyms: E7-12Ac
7-dodecen-1-ol, acetate, (7E)-

Substance Name: Deltamethrin
CAS Registry Number: 52918-63-5

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EINECS: 258-256-6
Formula: C₂₂H₁₉Br₂NO₃
Synonyms: α-cyano-3-phenoxybenzyl [1R-[1α(S*),3α]]-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate

Hazardous ingredients according to GHS classification:

Component	Classification	Concentration
(E)-8-Dodecenyl acetate CAS No: 38363-29-0 EINECS: 253-904-4	Skin Irrit. 3. H316 Eye Irrit. 2B. H320	< 1 %
(Z)-8-Dodecenyl acetate CAS No: 28079-04-1 EINECS: 248-823-6	Skin Irrit. 3. H316 Eye Irrit. 2B. H320	< 1 %
(E)-7-Dodecenyl acetate CAS No: 16695-41-3 EINECS: 240-725-1	Skin Irrit. 3. H316 Eye Irrit. 2B. H320	< 1 %
Deltamethrin CAS No: 52918-63-5 EINECS: 258-256-6	Acute Tox.5. H303 Aquatic acute 1. H400 Aquatic chronic 1. H410	6 %

For full text of H statements see section 16.

SECTION 4. FIRST AID MEASURES

General advice:

Avoid contact with skin, eyes or clothing. Wash hands thoroughly with soap before eating or drinking. Remove and wash contaminated clothing. Consult a physician if necessary and show this safety data sheet to the doctor.

Oral exposure:

If swallowed, wash out mouth with water provided person is conscious. Call a physician. Do not induce vomiting.

Inhalation exposure:

If inhaled, remove to fresh air. If not breathing, give artificial respiration and call a physician.

Dermal exposure:

In case of contact, immediately remove contaminated clothing where applicable, wash skin with soap and copious amounts of water for several minutes. Consult a physician if irritation continues.



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Eye exposure:

In case of contact with eyes, flush eyes with water for several minutes. If contact lenses are used, rinse eyes for 5 minutes, remove contact lenses and continue rinsing for several minutes. Call a physician.

Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Indication of any immediate medical attention and special treatment needed:

No data available

SECTION 5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable:

Water spray / fog, carbon dioxide, dry chemical powder, or alcohol-resistant foam.

Unsuitable:

Water with a full water jet.

Specific hazard(s):

Carbon dioxides and carbon monoxides.

Protective equipment for fire fighters:

Wear self-contained breathing apparatus and protective clothing if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. Dispose of according to local regulations.

Reference to other sections

For disposal see section 13



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SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with skin, eyes and clothing. Avoid inhalation of fog and vapours. Do not eat, drink or smoke while working. In addition to the standard chemical manufacturing practices, like splash proof filling and measuring equipment (including vapour stripping), further personal protection measures may have to be implemented to avoid possible contact with the product.

Conditions for safe storage, including any incompatibilities:

Store the product in closed original containers at temperatures below 5 °C, do not freeze and use within 24 months. Store separately from feed, food and stimulants.

SECTION 8. EXPOSURE CONTROLS / PPE

Control parameters:	Occupational exposure limits (OEL): None Biological exposure indices (BEI): None
Engineering controls:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Keep away from foodstuff, beverages and food. Avoid contact with skin and eyes, remove contaminated clothing immediately.
Personal protective equipment:	Handle with gloves that are impermeable and product resistant when handling lures removed from foil pouch. It is recommended that safety glasses are worn. Protective clothing can be used to avoid excessive skin contact.
Environmental controls:	Do not let product enter drains.

SECTION 9. PHYSICAL/CHEMICAL PROPERTIES

Physical state:	Viscous, grease-like, liquid paste in a plastic tube.
Colour:	Clear to turbid
Odour:	None to slight
Melting point / freezing point:	No data available
Boiling point / initial boiling point and boiling range:	> 174 °C
Flammability:	Not flammable
Lower and upper explosive limit /	

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Flammability limit:	No data available
Flash Point:	> 101 °C
Auto-ignition temperature:	Product does not auto-ignite
Decomposition temperature:	No data available
pH:	No data available
Kinematic viscosity:	1800-2000 at 20°C (
Solubility:	Water: Insoluble
Organic solvents:	Soluble in organic solvents
Partition coefficient: n-octanol/water (log value):	No data available
Vapour pressure:	2.4 x 10 ⁻⁵ Pa (25°C)
Explosive:	Product is not explosive
Density and or relative density:	1.07 g/cm ³ (20°C)
Relative vapour density:	No data available
Particle characteristics:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity:	No data available
Stability:	Stable at recommended storage conditions.
Possibility of hazardous reactions:	No data available
Conditions to avoid:	No data available
Incompatible materials:	Strong bases, Strong oxidizing agents, Strong reducing agents
Hazardous decomposition products:	Carbon monoxide and carbon dioxide.
Hazardous polymerization:	Not reported to occur under recommended conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Formulation not considered hazardous when used according to directions.

Information on likely routes of exposure:

Inhalation:	No adverse effects due to inhalation are expected.
Skin contact:	May cause an allergic skin reaction
Eye contact:	May cause slight irritation on direct contact.
Ingestion:	No adverse effects due to ingestion are expected.

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Symptoms related to the physical, chemical and toxicological characteristics:

May cause an allergic skin reaction.

Information on toxicological effects:

Acute toxicity:

Oral LD ₅₀ rat	2250 mg/kg,
Inhalation LD ₅₀ rat	> 20 mg/L
Dermal LD ₅₀ rabbit	> 5 000 mg/kg

Skin corrosion / irritation:

Skin irritation: Not considered a skin irritant.

Serious eye damage/eye irritation:

Eye irritation: May cause slight irritation on direct contact.

Respiratory or skin sensitisation

Respiratory sensitizer: Not considered as respiratory sensitizer.
Skin sensitizer: May cause an allergic skin reaction.

Germ cell mutagenicity:

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity:

Not considered a carcinogen by IARC, ACGIH, NTP or OSHA.

Reproductive toxicity:

This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity

Single exposure: No data available.
Repeated exposure: No data available.

SECTION 12. ECOLOGICAL INFORMATION

Formulation not considered environmentally hazardous when used as indicated.

Ecotoxicity (Neat F.C.M. pheromone):

Birds:	Acute oral LD ₅₀ > 2 250 mg/kg
Daphnia (<i>Daphnia magna</i>):	48-hour EC ₅₀ = > 0.38 mg/L
Fish (<i>Brachydanio rerio</i>):	96-hour LC ₅₀ = > 6.35 mg/L
Algae (<i>Pseudokirchneriella subcapitata</i>):	72-hour E _b C ₅₀ = 0.3 mg/L;

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$E_rC_{50} = 1.3 \text{ mg/L}$

Ecotoxicity (Neat Deltamethrin):

Birds (*Mallard ducks*):

> 4640 mg/kg

Daphnia (*Daphnia magna*):

48-hour $EC_{50} = > 0.32 \text{ mg/L}$

Reproductive:

NOEC: 4.7 ng/L

Fish (*Poecilia reticulata*):

48-hour EC_{50} : 0,32 mg/L

Algae (*Chlorella vulgaris*):

96-hour $LC_{50} = 0.00089 \text{ mg/L}$

EOEC: 4.7 ng/l

$E_bC_{50} = > 0.011 \text{ mg/L}$;

$E_rC_{50} = > 0.011 \text{ mg/L}$

Earthworms (*Lampito mauritii*):

$LD_{50} = > 1200 \text{ mg/kg}$

Activated sewage sludge (3 hours):

$EC_{50} = > 1000 \text{ mg/L}$

NOEC = 0.0495 mg/L

Persistence and degradability:

Easily biodegradable. No residues in soil.

Bioaccumulative potential:

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

Permethrin: BCF fish values ranging from 290 – 620 have been reported in sheepshead minnows by WHO Permethrin EHC 94, (1990) and Hansen et al, (1983). Based on measured BCF fish and BCF chironomid values < 2000 it is concluded that permethrin does not meet the B or vB screening criteria.

Mobility in soil:

Permethrin: Leaching potential of permethrin and its degradates showed that very little downward movement occurs in soil.

Results of PBT and vPvB assessment:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects:

It is unlikely that permethrin or its degradation products will attain levels of

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environmental significance provided that recommended application rates are used. Under laboratory conditions permethrin is highly toxic to fish, aquatic arthropods, and honey bees. However, lasting adverse effects are not likely to occur under field conditions provided it is used as recommended.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal instructions:

Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not contaminate water when disposing of the product. The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

SECTION 14. TRANSPORT INFORMATION

UN number:	3077
UN proper shipping name:	ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Deltamethrin) IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Deltamethrin) IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Deltamethrin)
Transport hazard class(es):	ADR/RID: 9 IMDG: 9 IATA: 9
Packaging group:	ADR/RID: III IMDG: III IATA: III

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Environmental hazards:	ADR/RID: Yes IMDG Marine pollutant: Yes IATA: Yes
Transport in bulk:	Not required.
Special precautions for user:	None

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:	No data available
Chemical Safety Assessment:	For this product a chemical safety assessment was not carried out.
Labelling Requirement:	Blue
WHO Toxicity Classification:	III: Product unlikely to present acute hazard in normal use.
SARA listed:	No
TSCA inventory item:	Yes

SECTION 16. OTHER INFORMATION

H303 (Category 5) May be harmful if swallowed
H316 (Category 3) Causes mild skin irritation
H317 (Category 1B) May cause an allergic skin reaction.
H320 (Category 2B) Causes eye irritation
H332 (Category 4) Harmful if inhaled
H400 (Category Acute 1) Very toxic to aquatic life.
H410 (Category Chronic 1) Very toxic to aquatic life with long lasting effects.

It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions. We reserve the right to revise material safety data sheets periodically as new information becomes available. No representations or warranties, either express or implied, of merchantability, fitness for a particular purpose of any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. Insect Science (Pty) Ltd assumes no responsibility for any damages, losses, injuries or consequential damages which may result from the use or misuse of this product and the recipient assumes all such risks.

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