

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name: CheckMate® FCM-F

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

CheckMate FCM-F is a pheromone-containing capsule suspension formulation for the control of False Codling Moth in citrus orchards by mating disruption

1.3 Details of the supplier of the safety data sheet

Manufacturer:

Suterra LLC
20950 N.E. Talus Place,
Bend,
Oregon U.S.A.
Tel.: 97701-8232
E-mail: sds@suterra.com

Distributor:

Adama Makhteshim Ltd
PO Box 60
Beer Sheva 84100
ISRAEL

1.4 Emergency telephone number

In Case of Poisoning:

Tel Aviv: 03-5460111
Jerusalem: 02-6523133
Haifa: 04-8512233

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

According to Regulation (EC) 1272/2008, the product is classified as follows:

Skin Irritant Category 2
Aquatic Chronic Category 3

2.2 Labels elements

Symbols and indications of danger:



Hazard Statement:

H315 Causes skin irritation
H412 Harmful to aquatic life with long lasting effects

Precautionary Statements:

- P261 Avoid inhalation of spray mist.
 P264 Wash hands thoroughly after handling
 P280 Wear protective gloves and eye protection
 P273 Avoid release to the environment
 P302+P352 E IF ON SKIN: Wash with plenty of soap and water.
 P332+P313 If skin irritation occurs: Get medical advice/attention.

To avoid risks to human health and the environment, comply with the instructions for use
 Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

2.3 Other hazards

The mixture does not meet the criteria for PBT or vPvB according to Annex XIII of Regulation (EC) No. 1907/2006

3. COMPOSITION/INFORMATION ON INGREDIENTS

NAME	CAS no.	EINECS no.	Content (g/l)	Classification* (Reg. 1272/2008):
(E)-8-Dodecen-1-yl-acetate	38363-29-0	253-904-4	175,2	Skin Irritant 2, H315 Aquatic Chronic 2, H411
(Z)-8-Dodecen-1-yl-acetate	28079-04-1	248-823-6	49,8	Aquatic Chronic 2, H411

*Classification assigned according to Regulation (EC) 1272/2008. For the meaning of the indications of Hazard Statements, please refer to section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

- Eye contact: IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Skin contact: IF ON SKIN: take off contaminated clothing. Gently wash with plenty of soap and water for 15-20 minutes. If skin irritation or rash occurs: get medical advice.
- Inhalation: IF INHALED: if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms occur, seek medical advice.
- Ingestion: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Seek a doctor or call a poison control centre.

4.2 Most important symptoms and effects, both acute and delayed

Due to the type of formulation, the absence of symptoms or effects, acute and delayed, is expected.

4.3 Indication of any immediate medical attention and special treatment needed

In case of accident or discomfort, seek medical advice.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media.

Suitable extinguishing agents: dry chemical, foam, carbon dioxide (CO₂).

5.2 Special hazards arising from the substance or mixture

Carbon oxides formed when the product burns.

5.3 Advice for firefighters

Evacuate area of all unnecessary personnel. Collect the water used to extinguish the fire and avoid release in the sewage system. Use standard firefighting procedures.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes and skin. Use protective gloves/face cover and clothing when handling the product and handle in a well-ventilated area.

6.2 Environmental precautions

Avoid release to the environment. Keep away from drainage system, surface and ground water. Prevent infiltration of water sources and sewers.

6.3 Methods and material for containing and cleaning up

Contain the dispersion. Use absorbent material and remove in a clean container. Wastes should be disposed according to current legislation.

Application System: Clean applicator thoroughly after use and dispose of wash water where it will not contaminate crops, grazing, rivers and dams.

Container: Invert empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of 10% of that of the container. Add rinsing to the contents of the spray or mixing tank.

Reseal containers immediately after use, store unused product away from food.

6.4 Reference to other sections

Please, refer to section 8 for further information on personal protection and to section 13 for the disposal of the contaminated material.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Wear protective clothing as described in section 8, if justified by exposure conditions. Avoid unnecessary contact with eyes and skin. Avoid vapour inhalation. Wash hands after handling. Wash contaminated clothing before reuse. Prevent contamination of water sources, food or feed.

7.2 Conditions for safe storage, including any incompatibilities

Store in its original container in a dry, cool and well-ventilated area until is used. Protect away from heat.

7.3 Specific end use(s)

CheckMate FCM-F is a pheromone-containing capsule suspension formulation for the control of False Codling Moth in citrus orchards by mating disruption.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits are not available for any of the substances contained in the mixture. There are no known side effects resulting from the use of the finished product.

8.2 Exposure controls

Personal protection information provided in this section based upon general information as to normal uses and conditions.

Individual protection measures, such as personal protective equipment (professional user)

Eye/face protection:	Avoid contact with eyes. Use face shield or safety glasses during handling and application.
Hand protection:	Use rubber or PVC gloves resistant to water during application during handling.
Skin protection:	Avoid contact with skin. Use personal protective equipment as required.
Respiratory protection:	Do not breathe vapours.

Environmental exposure controls

Avoid release to the environment. Do not contaminate water with the product or the container.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

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| a) Appearance: | Liquid capsule suspension. Content: Slight yellow liquid. |
| b) Odour: | Sweet, fruity |
| c) Odour threshold: | None |
| d) pH: | Neutral Ranged from 6.5-7.5. |
| e) Melting point/freezing point: | Not applicable for the product. |
| f) Initial boiling point and boiling range: | Not applicable for the product. |
| g) Flash point: | Not established for the product mixture. |
| h) Evaporation rate: | ~100°C due to water component |
| i) Flammability (Liquid, gas): | Not Flammable. The product contains > 75% of water. |
| j) Upper/lower flammability or explosive limits: | Not applicable for the product. |
| k) Vapour pressure: | Not applicable for the product. |
| l) Vapour density: | Not established for the product. |
| m) Relative density: | 0.98 g/ml |
| n) Solubility (ies): | The product contains water. Not soluble in water. |
| o) Partition coefficient n-octanol/water: | Not applicable for the product. Very high for the active substance. |
| p) Auto-ignition temperature: | Not established for the product. |
| q) Decomposition temperature: | Not established for the product. |
| r) Viscosity: | Not applicable for the product. |
| s) Explosive properties: | The product does not contain any explosive substance therefore the product is not explosive. |
| t) Oxidizing properties: | The The product does not contain any oxidizing substance therefore the product is not oxidizing. |

9.2 Other information

No additional information is reported.

10. STABILITY AND REACTIVITY

10.1 Reactivity

No reactions are known or expected to occur as to normal conditions of use.

10.2 Chemical stability

The product is stable at recommended storing conditions and for the use under the conditions reported in the label.

10.3 Possibility of hazardous reactions

According to the uses described on the label instructions, No hazardous reactions are known or expected.

10.4 Conditions to avoid

Keep at room temperature. Avoid exposing the containers to high temperatures (> 30 °C) and UV rays for a long time before the opening of Containers. Keep out of the reach of children.

10.5 Incompatible materials

The technical pheromone will degrade in presence of strong oxidant agents and oxygen. Avoid contact with strong oxidising agents.

10.6 Hazardous decomposition products

Carbon oxides form when the product is burned (in case of fire). No hazardous polymerization will occur.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

The product is not been tested. The toxicity of the preparation derives from the toxicity of the active substance. Therefore, the data reported in this section refer to the active substances:

(E/Z)-8-Dodecen-1-yl-acetate.

a) Acute toxicity

LD ₅₀ Oral (rat):	> 5050 mg/kg bw
LD ₅₀ Dermal (rat):	> 2000 mg/kg bw
LC ₅₀ Inhalation (rat):	> 5 mg/l air

b) Irritation

Eye irritation (rabbit):	Slightly irritating
Skin irritation (rabbit):	Skin Irritant.

c) Corrosivity:

Not corrosive

d) Sensitisation

Skin sensitisation: Not sensitising.

e) Repeated dose toxicity:

The product contains no component classified as toxic at repeated dose

f) Carcinogenicity:

The product contains no component classified as carcinogenic

g) Mutagenicity:

The product contains no component classified as genotoxic or mutagenic

h) Toxicity for reproduction:

The product contains no component classified as toxic for reproduction

12. ECOLOGICAL INFORMATION**12.1 Toxicity**

The product is not been tested. The toxicity of the preparation derives from the toxicity of the active substance. Therefore, the data reported in this section refer to the active substances: (E)-8-Dodecen-1-yl-acetate and (Z)-8-Dodecen-1-yl-acetate. Due to the characteristics of the mixture, effects on soil, water, air, plants or animals are not expected.

(E/Z)-8-Dodecen-1-yl-acetate.

LC ₅₀ 96 h, fish (<i>Oncorhynchus mykiss</i>):	8,3 mg/l
EC ₅₀ 48 h, crustaceous (<i>Daphnia magna</i>):	2,6 mg/l
EC ₅₀ 72h, Algae (<i>Pseudokirchnerella subcapitata</i>):	> 1.3 mg/l
LD ₅₀ , bird (<i>Colinus virginianus</i>):	> 2000 mg/kg bw
LD ₅₀ , Mammals:	> 5000 mg/kg bw
LD ₅₀ Oral, 48h	> 85 (µg a.s./bee)
LD ₅₀ Contact 48 h:	203.3 ± 47 (µg a.s./bee)

12.2 Persistence and degradability

No information available.

12.3 Bio-accumulative potential

No information available.

12.4 Mobility in soil

The product is liquid, easily washable. Prevent from entering the sewage or drains

12.5 Results of PBT and vPvB assessment

The mixture does not meet the criteria for PBT or vPvB according to Annex XIII of Regulation (EC) No. 1907/2006.

12.6 Other adverse effects

No additional information is known on other adverse effects on the environment

13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Product: Do not discard the product into sewers or other waterways. Dispose of product in accordance with national regulation for dangerous waste. Wastes resulting from the use of this product may be disposed of on site or at an approved disposal facility.

CONTAINER DISPOSAL- Emptied containers retain vapour and residue of preparation. Do not reuse the container. Destroy empty container and do not use for any other purpose. Dispose of container in accordance with national regulation for dangerous waste.

Plastic containers: rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned stay out of smoke.

Bag/Cardboard Box: Dispose of empty bag/cardboard box in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned stay out of smoke.

14. TRANSPORT INFORMATION

ADR/RID/AND-IMDG-IATA

14.1 Number:	Not applicable
14.2 UN proper shipping name:	Not applicable
14.3 Transport hazard class:	Not applicable
14.4 Packing group:	Not applicable
14.5 Environmental hazards:	Not applicable

14.6. Special precautions for user

See sections 6 to 8 of the present safety data sheet.

14.7 transport in bulk according to annex II of the Marpol 73/78 Convention and the IBC Code

Not applicable. Not transported in bulk.

15. REGULATORY INFORMATION

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

This product has been evaluated by the Ministry of Agriculture and Rural Development in Israel and authorised with the registration no. 4293.

16. OTHER INFORMATION

Version 2: General review of the MSDS.

Meaning of the indications of danger phrases mentioned in section 3:

H315 Causes skin irritation.

H411: Toxic to aquatic life with long lasting effects.

This information and recommendations set forth are believed to be accurate as of the date hereof, Suterra LLC, makes no warranty with respect hereto and disclaims all liability from reliance thereon.