

Safety Data Sheet in accordance with US HazCom 2012

SECTION 1: IDENTIFICATION

1.1 Product identifier

Trade Name: CheckMate® Puffer® IMM

Product form: mixture

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

CheckMate® Puffer® IMM is an aerosol product that emits a sex pheromone component that is shared by the Indian Meal Moth (*Plodia interpunctella*), Mediterranean Flour Moth (*Ephesia kuehniella*), Raisin Moth (*Cadra figulilella*), Almond Moth (*Cadra cautella*) and Tobacco Moth (*Ephesia elutella*). The product is used in stored product scenarios to control populations of these pests via mating disruption.

Plant protection product in aerosol cans for professional use only.

Uses advised against: Uses not listed on the label.

Reasons for use advised against: Product for agricultural use only, any other use is not recommended.

1.3 Details of the supplier of the safety data sheet

Suterra LLC

20950 NE Talus Place

Bend, Oregon 97701 (U.S.A.)

TEL: (541) 388-3688

FAX: (541) 388-3705

1.4 Emergency telephone number

EMERGENCY TELEPHONE NUMBERS: 1-866-326-6737

LEAK, FIRE, SPILL, OR ACCIDENT: (800) 424-9300 (CHEMTREC – U.S.A. & CANADA)
(703) 527-3887 (CHEMTREC – Collect - All Other Countries)

MEDICAL: Call Doctor, Poison Control Center or (541) 388-3688

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture

In consideration of the product formulation and characteristics the proposed classification is:

Flammable Aerosol Category 2 – Flammable aerosol

Eye Irritation Category 2 – Causes serious eye irritation

2.2 Labels elements

This product is registered under the USA Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The FIFRA label elements are presented within Section 15 of this SDS.

The OSHA HazCom 2012 label elements presented are consistent for chemicals in the workplace. The USA EPA recognizes that conflicts between FIFRA labels and the labels of other chemicals in the workplace could mislead workers about hazards, in some instances perhaps creating the impression that pesticides are less hazardous when they are not. Confusion due to inconsistent labeling could result in increased risks to works. Workers should review and follow the hazards and risk management statements on the FIFRA label.

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GHS-US Classification

Hazard pictograms and signal words:



Warning

Hazard Statements

H223 Flammable aerosol

H229 Pressurized container: may burst if heated

H319 Causes serious eye irritation

Precautionary Statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P211 Do not spray on an open flame or other ignition source

P251 Pressurized container: Do not pierce or burn, even after use.

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 F.

P264 + P265 Wash hands thoroughly after handling. Do not touch eyes.

P280 Wear eye and face protection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P317 If eye irritation persists: Get medical help.

P405 Store locked up.

P501 Dispose of contents/container to national regulations

2.3 Other hazards

The mixture does not meet the criteria for PBT or vPvB.

The substances contained in the product do not meet the criteria to be identified as endocrine disruptors according to Regulation (EU) 2017/2100.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable. The product is not a substance or nanoform.

3.2 Mixtures

Name	CAS n., EINECS n.	Content* % w/w
Ethanol	64-17-5 200-578-6	50-60
(Z,E)-9,12-Tetradecadienyl acetate	31654-77-0 250-753-6	3.65

* The exact percentage of the composition has been withheld as a trade secret

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SECTION 4: FIRST-AID MEASURES

4.1 Description of first aid measures

IF INHALED: Move person to fresh air. If person is not breathing call 911 or an ambulance then give artificial respiration, preferably mouth-to-mouth if possible. Call a Poison Control Center or doctor for further treatment advice.

IF ON SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for advice.

IF IN EYES: Hold eye(s) open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, and continue rinsing. Call a Poison Control Center or doctor for advice.

IF SWALLOWED: Call Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a Poison Control Center or doctor. Do not give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

If eye irritation occurs, get medical advice.

4.3 Indication of any immediate medical attention and special treatment needed

None required.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media.

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

5.2 Special hazards arising from the substance or mixture

Pressurized container: May burst if heated. Carbon oxides formed when the product is burned.

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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes. Use protective glasses when handling the product.

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.

6.4 Reference to other sections

Please, refer to section 8 and to section 13 for further information.

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SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Read the label before using the product. Wear protective clothing as described in section 8, if justified by exposure conditions. Avoid unnecessary contact with eyes and skin. Do not eat, drink or smoke while handling the product.

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. Avoid ignition. Protect from sunlight and do not expose to temperatures exceeding 122 F.

The technical pheromone will be degraded in presence of strong oxidant agents and oxygen. Avoid contact with strong oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

CheckMate® Puffer® IMM

No additional information available

Ethanol, ethyl alcohol (64-17-5)

USA - ACGIH - Occupational Exposure Limits

Local name	Ethanol
ACGIH OEL STEL [ppm]	1000 ppm
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
ACGIH chemical category	Confirmed Animal Carcinogen with Unknown Relevance to Humans
Regulatory reference	ACGIH 2023

USA - OSHA - Occupational Exposure Limits

Local name	Ethyl alcohol (Ethanol)
OSHA PEL (TWA) [1]	1900 mg/m ³
OSHA PEL (TWA) [2]	1000 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

USA - IDLH - Occupational Exposure Limits

IDLH [ppm]	3300 ppm (10% LEL)
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USA - NIOSH - Occupational Exposure Limits

NIOSH REL (TWA)	1900 mg/m ³
NIOSH REL TWA [ppm]	1000 ppm

9,12-Tetradecadien-1-ol, acetate, (Z,E)- (31654-77-0)

No additional information available

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8.2 Exposure controls

Personal protection information provided in this section is 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. Wear safety glasses when installing the product.

Hand protection: Not necessary

Skin protection: Avoid contact with skin. Wear impermeable gloves when installing the product.

Respiratory protection: No specific protective equipment is required.

Environmental exposure controls

Avoid release to the environment. Do not contaminate water with the product or the container. Do not reuse the empty containers that must be disposed according to the national regulation.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Appearance:	Metallic color (dispenser), Limpid liquid (content)
Color:	Clear colorless
Odor:	Aromatic
Odor threshold:	None
pH (room temperature):	Not applicable for the product.
Melting point/freezing point:	Not applicable for the product.
Initial boiling point and boiling range:	Not applicable for the product.
Flash point:	Not established for the product mixture.
Evaporation rate:	Not established for the product.
Flammability (solid, gas):	The product is classified as a flammable aerosol (Category 2)
Upper/lower flammability or explosive limits:	Not applicable for the product.
Vapor pressure:	Not applicable for the product.
Vapor density:	Not established for the product.
Relative density:	0,98-1,02 (aerosol)
Solubility(ies):	Not applicable for the product. The active substance is not soluble in water.
Partition coefficient n-octanol/water:	Not applicable for the product. Very high for the active substance.
Auto-ignition temperature:	Not established for the product.
Decomposition temperature:	Not established for the product.
Viscosity:	Not applicable for the product.
Explosive properties:	Not applicable for the product.
Oxidizing properties:	Not applicable for the product.

9.2 Other information

No additional information is reported.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No reactivity reactions are known or expected to occur as to normal uses conditions.

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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

No hazardous reactions are known or expected for uses according to label instructions.

10.4 Conditions to avoid

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 122 F. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Avoid contact with excessive heat, sparks or open flames.

10.5 Incompatible materials

The technical pheromone will be degraded in presence of strong oxidant agents and oxygen. Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products

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

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

The product has not been tested. The toxicity of the preparation derives from the toxicity of the active substance (Z,E)-9,12-Tetradecadienyl acetate and of ethanol.

a) Acute toxicity

LD ₅₀ Oral (rat):	> 5000 mg/kg bw (SCLP Acetates group)
LD ₅₀ Dermal (rat):	> 5000 mg/kg bw (SCLP Acetates group)
LC ₅₀ Inhalation (rat):	> 5.3 mg/L air/4h (SCLP Acetates group)

b) Irritation

Eye irritation (rabbit):	Slight irritant
Skin irritation (rabbit):	Not irritant

c) Corrosivity:

Not corrosive

d) Sensitization

Skin sensitization:	Not sensitizer
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e) Repeated dose toxicity:

Not toxic for repeated exposure

f) Carcinogenicity:

Not carcinogenic

g) Mutagenicity:

Not genotoxic or mutagenic

h) Toxicity for reproduction:

Not toxic for reproduction

11.2 Information on other hazards

As stated in section 2.3, the substances contained in the product have no adverse health effects caused by endocrine disrupting properties.

Likely routes of exposure: inhalation, skin and eye.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

The product has not been tested. The toxicity of the preparation derives from the toxicity of the active substance.

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LC ₅₀ 96 h, fish (<i>Oncorhynchus mykiss</i>):	> 10.0 mg/l ((Z,E)-9,12-Tetradecadienyl acetate)
EC ₅₀ 48 h, crustaceous (<i>Daphnia magna</i>):	1.1 mg/l ((Z,E)-9,12-Tetradecadienyl acetate)
ErC ₅₀ 48 h, Algae (<i>Pseudokirchneriella subcapitata</i>):	1.3 mg/l ((Z,E)-9,12-Tetradecadienyl acetate)
LD ₅₀ 48 h birds (<i>Colinus virginianus</i>):	> 2250 mg/kg ((Z,E)-9,12-Tetradecadienyl acetate)
LD ₅₀ terrestrial vertebrates:	> 5000 mg/kg ((Z,E)-9,12-Tetradecadienyl acetate)

12.2 Persistence and degradability

Does not apply, this product must be collected at the end of the period of use.

12.3 Bio-accumulative potential

No information available. Exposure not likely.

12.4 Mobility in soil

Not applicable to this product. Exposure not likely.

12.5 Results of PBT and vPvB assessment

The mixture does not meet the criteria for PBT or vPvB.

12.6 Endocrine disrupting properties

No data available. The substance is not expected to have endocrine disruption properties.

12.7 Other adverse effects

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

SECTION 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.

Container: Emptied containers retain vapor and residue of preparation. Do not reuse the container. Dispose of container in accordance with national regulation for dangerous waste.

SECTION 14: TRANSPORT INFORMATION

The suitable shipping classification must be evaluated at the time of shipment due to the possibility for variations in regard to the transportation of this material considering the requirements, modes of transport, packaging, packaging configuration, quantity etc. Please consult the appropriate regulation for specific shipping information and requirements.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation information can be obtained through the authorized transporting corporation. It is the responsibility of the transporting corporation to follow all applicable laws, regulations and rules relating to the transportation of this product.

A. Aerosol cans - UN1950 "Flammable AEROSOL"

ADR/RID/AND

14.1 Number:

UN1950

14.2 UN proper shipping name:

AEROSOL, Flammable

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14.3 Transport hazard class: 2.1
14.4 Packing group: Not assigned
14.5 Environmental hazards: No
Limited Quantities: LQ-1L

IMDG

14.1 Number: UN1950
14.2 UN proper shipping name: AEROSOL, Flammable
14.3 Transport hazard class: 2.1
14.4 Packing group: Not assigned
14.5 Marine pollutant: No
Limited Quantities: LQ-1L

IATA

14.1 Number: UN1950
14.2 UN proper shipping name: AEROSOL, Flammable
14.3 Transport hazard class: 2.1
14.4 Packing group: Not assigned
14.5 Environmental hazards: No
Limited Quantities: LQ-1L

B. Aerosol cans in electronic apparatus Puffer Aerosol Cabinet - UN3091 "LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT". Product packed in a crate (Aerosol cans in Apparatus)

ADR/RID/AND

14.1 UN Number UN3091
14.2 UN proper shipping name Lithium metal batteries contained in the apparatus
14.3 Transport hazard class 9
14.4 Packing group Not assigned
14.5 Environmental hazards No

IMDG

14.1 UN number UN3091
14.2 UN proper shipping name Lithium metal batteries contained in the device
14.3 Transport hazard class 9
14.4 Packing group Not assigned
14.5 Environmental Hazards No

IATA

14.1 UN number UN3091
14.2 UN proper shipping name Lithium metal batteries contained in the device
14.3 Transport hazard class 9
14.4 Packing group Not assigned
14.5 Environmental hazards Yes

14.6. Special precautions for user

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use. Do not spray on a flame or any incandescent material.

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

Not transported in bulk in accordance with the IBC Code.

SECTION 15: REGULATORY INFORMATION

This product is a pesticide product registered by the Environmental Protection Agency on January 28, 2016 with EPA Reg. Number 73479-16 and is subject to certain labelling requirements under Federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDSs), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including the Directions for Use.

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed, inhaled or absorbed through the skin. Causes moderate eye and skin irritation. Avoid breathing vapor or spray mist. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse.

EPA Registration Number: 73479-16

SECTION 16: OTHER INFORMATION

Version 4: General review and update of the MSDS and update of section 2

Date of last change to the SDS: November 9, 2023

Abbreviations

ACGIH - American Conference of Governmental Industrial Hygienists

CAS – Chemical Abstract Services

EC₅₀ – Median lethal exposure concentration

EINECS - European Inventory of Existing Commercial Substances

EPA – Environmental Protection Agency

EU – European Union

IDLH – Immediately Dangerous To Life or Health

irr – irritation

LC₅₀ – Median lethal concentration

LD₅₀ – Median lethal dose

NIOSH – National Institute for Occupational Safety & Health

OSHA – Occupational Safety and Health Administration

PBT – Persistent, Bioaccumulative and Toxic

PEL – Permissible Exposure Limit

REL - Recommended Exposure Limits

SCLP – Straight Chain Lepidopteran Pheromone

TWA - Time-Weighted Average

URT – Upper respiratory tract

vPvB - very Persistent and very Bio-accumulative

While 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.

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