

SAFETY DATA SHEET

NAME OF PRODUCT Tangler CM

MSDS DATE: 10 / 21 / 2018

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Tangler CM

SYNONYMS: Codlemone, Codling Moth Pheromone

MANUFACTURER: Deploy Technologies Inc.

ADDRESS: 13864 Eagle Ridge Drive, Suite B, Kent City, MI 49330

EMERGENCY PHONE: (616) 675-7474

PRODUCT USE: Tangler CM contains a behavior modifying biochemical (pheromone) that disrupts the mating of codling moth (*Cydia pomonella*), and hickory shuckworm, (*Cydia caryana*). It is to be used in orchards of apple, pear, walnut, pecan, peach, prune, plum, nectarine or where the two pests are present.

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Concentration
E8E10-dodecadienol	33956-49-9	65.74 - 61.92%
1-Dodecanol	112-53-8	25.98 - 24.46%
1-Tetradecanol	112-72-1	8.83 - 7.99%

Other ingredients

Trade secret

SECTION 3: HAZARDS IDENTIFICATION

May be irritating to skin and eyes on contact. Follow safe practices and always wear proper personal protective equipment.

SECTION 4: FIRST AID MEASURES

EYES: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.

SKIN: In case of contact, immediately wash skin with soap and copious amounts of water. Remove contaminated clothing and shoes. Thoroughly wash clothing before reuse.

INGESTION: If ingested, wash out mouth with water. Call a physician.

INHALATION: If inhaled, remove to fresh air. If breathing is difficult, administer oxygen.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Water spray, carbon dioxide, dry chemical powder, foam.

Unsuitable Extinguishing Methods:

Water with full water jet.

METHOD USED: Pensky-Martens

EXTINGUISHING MEDIA:

No special requirements.

SPECIAL FIRE FIGHTING PROCEDURES:

Fire fighters should use self-contained breathing equipment and protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Under confined conditions, a vapor of this material in the air may cause a rapid combustion if ignited by exposure to heat, sparks or open flame.

SECTION 6: ACCIDENTAL RELEASE MEASURES

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Spill Cleanup Irritating material.

Instructions Do not contaminate water, food or feed by storage or disposal. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean water mark. Absorb on sand or vermiculite and place in closed container for disposal. Sweep up, place in suitable container for waste disposal. If spill is a viscous solution, flush with plenty of water. Ventilate area and wash spill site after material pickup is completed.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE:

Do not contaminate water, food or feed by storage or disposal. Avoid contact with eyes, skin and clothes. Use with adequate ventilation. Wash thoroughly after handling. Keep container closed until application. Avoid open flame, heat, sparks. Avoid contact to acid, peroxides and other oxidizing materials. Store in a sealed container. Store in a cool dry location. Extended storage requires temperatures below 40 degrees Fahrenheit. Keep away from heat or sunlight. Keep away from possible source of ignition. Do not store in areas used to store food.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: Not required under normal use conditions.

RESPIRATORY PROTECTION:

Not required under normal use conditions.

EYE PROTECTION:

Recommend wearing safety glasses.

SKIN PROTECTION:

Recommend wearing gloves.

PROTECTIVE CLOTHING:

Wear protective garments to prevent excessive skin contact and protective eyewear. Remove and wash contaminate clothing before reuse.

WORK HYGIENIC PRACTICES:

Avoid contact with skin, eyes or clothing. Harmful if absorbed through skin. Causes moderate eye irritation. After handling, wash thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using the bathroom.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Active Ingredients:

APPEARANCE: Colorless or Transparent Light Yellow

ODOR: Oily-fatty and slightly waxy

PHYSICAL STATE: Liquid

PH: 5.6

BOILING POINT: 110-120 °C

MELTING POINT: Liquid at Room Temperature

VAPOR PRESSURE (mmHg): 1.42x10⁻² (25°C)

VAPOR DENSITY (AIR = 1): Not available

FLASH POINT: F: 91

SPECIFIC GRAVITY (H₂O = 1): 0.857g/cm³ (25°C)

SOLUBILITY IN WATER: Insoluble

VISCOSITY: 22.9 c.s (25°C)

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable if follow directions on label.

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CONDITIONS TO AVOID (STABILITY):

Avoid contact with strong oxidizers, excessive heat, sparks or open flame.

INCOMPATIBILITY (MATERIAL TO AVOID):

Acids, peroxides and other oxidizing agents.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

Thermal decomposition products may include toxic oxides of carbon.

HAZARDOUS POLYMERIZATION:

Not reported to occur under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

KEEP OUT OF REACH OR CHILDREN. CAUTION. Avoid contact with skin, eyes or clothing. Harmful if absorbed through skin. Causes moderate eye irritation. Wear protective glasses, eyewear and clothing when applying. After handling wash thoroughly before eating, drinking, chewing gum, using tobacco or the bathroom.

The active ingredient is a straight chain Lepidopteron Pheromone, a class of pheromones with no expected risks to human health or non-target organisms.

Active Ingredients:

Acute Toxicity: LD 50 (Oral/Rat) > 5000 mg/kg
LD 50 (Dermal/Rabbit) > 2000 mg/kg
LD 50 (Inhalation/Rat) > 5 mg/l

Skin Irritation: Rabbit, slight to moderate

Eye Irritation: Rabbit, Slight to moderate

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:

For terrestrial uses only: Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of this product.

Active Ingredients:

Biodegradation: Easily decomposes to carbon dioxide and water. No residue in soil.

Ecotoxicity: Birds (Bobwhite quail): 14-day Acute Oral LD50: >2150 mg/kg
Fish (Rainbow trout): 96-hour Acute Toxicity LC50 >120mg/l
Aquatic Invertebrate (Daphnia magna): 48-hour Acute Toxicity LC50>1.3 mg/l

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of this product. Nonrefillable container. Waster resulting from this product may be disposed on site or at an approved waste disposal facility. Dispose of all waste in trash.

SECTION 14: TRANSPORT INFORMATION

Road (U.S. DOT): Not Regulated
Air (IATA): Not Regulated
Sea (IMDG): Not Regulated

NMFC number: S155050-12, class 60

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT):

This product is in compliance with rules, regulations, and orders of TSCA. All components are listed on the TSCA inventory.

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SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):

There are no reportable components in this product.

311/312 HAZARD CATEGORIES:

The hazard categories for this product are CAUTION, KEEP OUT OF REACH OF CHILDREN.

313 REPORTABLE INGREDIENTS: There are no reportable components in this product.

SECTION 16: OTHER INFORMATION

FOR AGRICULTURAL USE ONLY

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