

MATERIAL SAFETY DATA SHEET

Mosquiron Controlled Release Mosquito Larvicide

FILE NO.:
MSDS DATE: October 10, 2013

WHMIS: Non-Controlled

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Mosquiron 0.12CRD Novaluron Insecticide; Mosquiron 0.12P Novaluron Insecticide

SYNONYMS:

PRODUCT CODES:

MANUFACTURER: KOLLANT S.R.L.

DIVISION:

ADDRESS: Via C.Colombo 7/7A, 30030 VIGONOVO (VENICE) ITALY

EMERGENCY PHONE: 1 800 222-1222

SafetyCall® at (866) 897-8050

FAX #/PHONE#: 905 312 8535 / 1-866-648-7773

CHEMICAL NAME: Active Ingredient: 1-[3-chloro-4-(1,1,2-trifluoro-2-trifluoro-methoxyethoxy)phenyl]-3-(2,6-difluorobenzoyl)urea
Inert Ingredients: fatty acid mixture of waxes

CHEMICAL FAMILY: benzoyl urea (Rimon Technical), novaluron

CHEMICAL FORMULA: C₁₇H₉ClF₈N₂O₄

PRODUCT USE: mosquito larvicide

PREPARED BY: R. Dupree

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT: Novaluron
waxes

CAS NO.	% WT	% VOL	SARA 313 REPORTABLE
116714-46-6	< 1%	<1%	No
N/D	>99%	>99%	No

SECTION 3: HAZARDS IDENTIFICATION

Mosquiron products are formulated as a solid composition and all ingredients are essentially nontoxic by all routes of exposure.

POTENTIAL HEALTH EFFECTS

EYES: Non-irritating

SKIN: Non-irritating

INGESTION: May cause gastric distress

INHALATION: not applicable

CARCINOGENICITY

OSHA:
OTHER:

ACGIH:

NTP:

IARC:

SECTION 3 NOTES: NOT CARCINOGENIC

FILE NO.:
MSDS DATE: October 10, 2013

EYES: Wash with plenty of water for at least 15 minutes. If irritation persists seek medical attention.

SKIN: Remove contaminated clothing and wash affected areas with soap and water. If skin irritation or redness occurs consult a physician.

INGESTION: Do Not Induce Vomiting. Get immediate medical assistance.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: There is no specific antidote. Treat symptomatically. If ingested perform gastric lavage.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, (% BY VOLUME)	UPPER: N/D LOWER: N/D
-------------------------------------------	--------------------------

FLASH POINT:

F:

C: 210

METHOD USED: DIN 51758

AUTOIGNITION TEMPERATURE: N/D

F:

C:

EXTINGUISHING MEDIA: Use water fog. If foam is used Foam Type should be alcohol.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, positive pressure breathing apparatus and full firefighting protective clothing. Do not use full water jet, carbon dioxide or dry chemical. Fight fire from as far a distance away as possible. Use water spray to cool fire exposed containers. Do not inhale smoke or combustion gases. Do not use a solid stream of water as molten wax may be spread to ignition sources or carry fire to other flammable materials. Use water spray or foam to control fire. Collect contaminated fire-fighting water separately. Prevent fire-fighting runoff from reaching sewers or bodies of water as it will contain chemicals which are hazardous to the environment.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/D

HAZARDOUS DECOMPOSITION PRODUCTS: N/D

SECTION 6: ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF A SPILL: Wear prescribed protective equipment. Sweep up or shovel broken controlled release devices or contaminated product into disposal containers. Controlled release devices which have not broken can be recovered. Wear chemical resistant gloves during cleanup. If melted, allow to solidify first. Clean up spill location. Must not be released into sewers, drains or wells.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Store in a cool, dry, well ventilated area in tightly closed original containers at a temperature not greater than 40C away from oxidizing agents, heat, sparks, flames and all other ignition sources. Open and handle containers with care. Open sealed bags only at time of use. Insure excessive moisture is not allowed to come in contact with the controlled release devices or moisture absorption may occur resulting in softening of the device. Do not eat, drink or smoke when handling. Wash hands before breaks and after work.

MATERIAL SAFETY DATA SHEET

Mosquiron Controlled Release Mosquito Larvicide

FILE NO.:
MSDS DATE: October 10, 2013

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: Dust should not be created by use of this product. If dust is created due to rough handling wear an approved dust respirator.

EYE PROTECTION: Wear safety glasses with side-shields.

PROTECTIVE GLOVES: Wear nitrile gloves.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear clothing suitable to avoid skin contact.

VENTILATION: Maintain good ventilation.

EXPOSURE GUIDELINES: Not established.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (con't)

APPEARANCE: cylindrical in shape, 5-10 cm length x 1-2 cm diameter

ODOR: Characteristic odour

PHYSICAL STATE: solid

pH AS SUPPLIED: N/A

pH (Other): when applied to water source pH will not be impacted

BOILING POINT: N/D

F:

C:

MELTING POINT:

F:

C: 80-85

FREEZING POINT: N/A

F:

C:

VAPOR PRESSURE (mmHg): N/A

@

F:

C:

VAPOR DENSITY (AIR = 1): N/A

@

F:

C:

SPECIFIC GRAVITY (H₂O = 1): 1.0 – 1.5

@

F:

C: 20

EVAPORATION RATE: N/A

BASIS (=1):

SOLUBILITY IN WATER: controlled release device consists of soluble and insoluble waxes. Soluble wax accounts for 25% – 35% by weight. Solubility of soluble wax is 200 g/L.

PERCENT SOLIDS BY WEIGHT: 100%

PERCENT VOLATILE: N/A

BY WT/ BY VOL @

F:

C:

VOLATILE ORGANIC COMPOUNDS (VOC): N/A

WITH WATER: LBS/GAL

WITHOUT WATER: LBS/GAL

MOLECULAR WEIGHT: N/D

VISCOSITY: N/A

MATERIAL SAFETY DATA SHEET

Mosquiron Controlled Release Mosquito Larvicide

FILE NO.:
MSDS DATE: October 10, 2013

SECTION 10: STABILITY AND REACTIVITY

	<u>STABLE</u>	<u>UNSTABLE</u>
STABILITY:	X	
CONDITIONS TO AVOID (STABILITY): None Known		
INCOMPATIBILITY (MATERIAL TO AVOID): Avoid contact with oxidizing agents		
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Thermal decomposition may produce oxides of carbon		
HAZARDOUS POLYMERIZATION: Will not occur.		
CONDITIONS TO AVOID (POLYMERIZATION): None Known		

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:	Mosquiron 0.12 CRD and 0.12P Products Acute Oral LD ₅₀ - > 5000 mg/kg (rat) Acute Dermal LD ₅₀ - >5050 mg/kg (rat) Acute Inhalation LC ₅₀ - N/A products are solids Skin Irritation - minimally irritating (rabbit) Eye Irritation - minimally irritating to eyes (rabbit) Sensitization: - non sensitizer (guinea pig)	
	Inert Ingredients (Waxes) Acute Oral LD ₅₀ >20000 mg/kg Skin Irritation: non-irritating Eye Irritation: non-irritating	Active Ingredient (novaluron) Acute Oral LD ₅₀ - > 5000 mg/kg (rat) Acute Dermal LD ₅₀ - >2000 mg/kg (rat) Acute Inhalation LC ₅₀ - > 5.15 mg/L, 4 hours (rat) Skin Irritation - non-irritating (rabbit) Eye Irritation - mildly irritating to eyes (rabbit) Sensitization: - non sensitizer (guinea pig) Carcinogenicity: - not carcinogenic Mutagenicity: - no evidence of genotoxicity Reproduction Toxicity: - not teratogenic in animal experiments

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:	Inert Ingredients (waxes)	Active Ingredient (novaluron)
Ecotoxicity (Fish LC ₅₀) (Birds LD ₅₀) (Daphnia magna EC ₅₀) (Algae)	>1.0 mg/L 96 hours, rainbow trout	Persistence/degradability Half-life T_{1/2} 68-76 days, soil > 500 mg/L 48 hours, golden orfe > 2000 mg/kg 0.279 ug/L, 48 hours NOEC > 9.68 mg/L, 72 hours

SECTION 12 NOTES: this product is highly toxic to aquatic organisms such as crustaceans and aquatic insects

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: dispose according to local regulations

RCRA HAZARD CLASS:

MATERIAL SAFETY DATA SHEET
Mosquiron Controlled Release Mosquito Larvicide

FILE NO.:
MSDS DATE: October 10, 2013

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION **NOT REGULATED**
PROPER SHIPPING NAME:
HAZARD CLASS:
ID NUMBER:
PACKING GROUP:
LABEL STATEMENT:

WATER TRANSPORTATION **NOT REGULATED**
PROPER SHIPPING NAME:
HAZARD CLASS:
ID NUMBER:
PACKING GROUP:
LABEL STATEMENTS:

AIR TRANSPORTATION **NOT REGULATED**
PROPER SHIPPING NAME:
HAZARD CLASS:
ID NUMBER:
PACKING GROUP:
LABEL STATEMENTS:

OTHER AGENCIES:

SECTION 14 NOTES:

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS
TSCA (TOXIC SUBSTANCE CONTROL ACT): NOT LISTED

INTERNATIONAL REGULATIONS: NOT CLASSIFIED BY THE EU

SECTION 16: OTHER INFORMATION

DISCLAIMER: The information contained on this MSDS is to the best of our knowledge an accurate summary of the data available as of the date of preparation. Tumaini (CRT) Inc. is not liable for the application or use of this information in situations beyond its control or outside the normal and expected use of its product. Tumaini (CRT) Inc. assumes no responsibility for damage or injury from the use of this product described herein.