



Material Safety Data Sheet

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PRODUCT NAME: Bactrocera-Block

MANUFACTURER: Kenya Biologics Ltd.

ADDRESS: Kenya Biologics Ltd. P.O.Box 249-01020, Kenol, Kenya

Issue Date: 05/10/2015

SECTION I. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	Bactrocera-Block	
PRODUCT DESCRIPTION:	Methyl Eugenol and Malathion impregnated fibre block	
CHEMICAL CONTENTS:	Methyl Eugenol	Malathion
CHEMICAL FAMILY:	Fruit fly attractant	Insecticide
CHEMICAL FORMULA:	C ₁₁ H ₁₄ O ₂	C ₁₀ H ₁₉ O ₆ PS ₂
MANUFACTURER:	Kenya Biologics Ltd.	
ADDRESS:	P.O. Box 249-01020, Kenol, Kenya	

SECTION II. INGREDIENTS

Components:	Methyl Eugenol	Malathion
IUPAC name:	1,2 –Dimethoxy-4-(2-propenyl) Benzene	1,2-di(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioat
CAS#:	93-15-5	121-75-5

SECTION III. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS:	May cause irritation to mucous membranes and upper respiratory tract
SKIN:	May cause skin irritation
	ACUTE EXPOSURE DATA: May cause irritation
	CHRONIC EXPOSURE DATA: Repeated exposure or prolonged contact may cause dermatitis

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INHALATION:	ACUTE EXPOSURE DATA: Inhalation of volatile oils may cause dizziness, rapid shallow breathing, tachycardia, bronchial irritation and unconsciousness or convulsions. Complications may include anuria, pulmonary edema and bronchial pneumonia CHRONIC EXPOSURE DATA: No data available
EYES:	May cause irritation. ACUTE EXPOSURE DATA: May cause irritation CHRONIC EXPOSURE DATA: No data available
INGESTION:	ACUTE EXPOSURE DATA: Ingestion of volatile oils may cause abdominal burning, nausea, vomiting, Diarrhoea, Hematuria, shallow respiration and convulsions. Complications may include anuria, pulmonary edema and bronchial pneumonia Pathologic findings from ingestion of volatile oils include renal degenerative changes and intense congestion and edema in the lungs, brain and gastric CHRONIC EXPOSURE DATA: There was clear evidence of carcinogenic activity in mice and rats of both e sexes based on increased incidences of liver neoplasms and neuroendocrine tumors of the glandular stomach

SECTION IV. FIRST AID MEASURES

EYE CONTACT:	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention.
SKIN CONTACT:	Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse get medical attention.
INHALATION:	Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
INGESTION:	If a large amount is swallowed, get medical attention.

SECTION V. FIRE AND EXPLOSION DATA

Flammability of the product:	No data available
Auto-Ignition temperature:	No data available
Flash points (closed cup):	No data available
Flammable limits:	No data available
Fire fighting media and instructions:	Move block from fire area, dry chemical, CO2, water spray or regular foam.
Special remarks on fire & explosive hazard:	Alert medical personnel to be ready to treat for pesticide poisoning.

SECTION VI. ACCIDENTAL RELEASE MEASURES

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Steps to be taken if material is spilled: Sweep up and transfer for proper disposal. Refer to state, federal, released or spilled: local regulations. Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

SECTION VII. HANDLING AND STORAGE

Precautions: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

SECTION VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: Respiratory: Not required for product.
Ventilation: Not required for product.

Personal protection: Eyes: Safety goggles
Skin: Chemical resistant gloves.
General Hygiene Measures: Wash contaminated clothing before reuse. Wash thoroughly after handling.

Exposure limits: Malathion : OSHA PEL 8 hr TWA 15 mg/m³ (sk);1 mg/m³ (Inhal); BEI

SECTION IX. PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: Fibre block

Odour: Malathion like odour

Colour: Brown

pH (1% soln/water) No data available

Boiling point: No data available

Molecular weight: Not required for product

Melting point: No data available

Critical temperature: No data available

Specific gravity: No data available

Vapour pressure: No data available

Vapour density No data available

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Volatility: No data available

Solubility: Methyl Eugenol Malathion
Solvent: Fixed oils, alcohol, In water 145 mg/l (25 C)
ether, and ethanol.

SECTION X. STABILITY AND REACTIVITY DATA

Stability: Stable at normal temperatures and pressure

Conditions to avoid Excessive heat, Avoid contact with iron, strong alkali.

Incompatibility with various substances: Materials to Avoid: Strong oxidizing agents and alkaline materials.

Special remarks on reactivity: Hazardous Decomposition Products: Carbon Monoxide, Carbon Dioxide

Polymerization: Will not occur under normal temperature and pressure.

SECTION XI. TOXICOLOGICAL INFORMATION

Routes of entry: Skin Contact: Cause skin irritation.
Skin Absorption: May be harmful if absorbed through skin.
Eye Contact: Causes eye irritation.
Inhalation: May be harmful if inhaled.
Ingestion: Harmful if swallowed.

Toxicity to animals: Methyl Eugenol Malathion

Acute toxicity data: Oral RAT LD50 810 mg/kg Oral RAT LD50 1375-5500 mg/kg
Inhalation RAT LC50 >4800 mg/m3 MICE LD50 775-3320 mg/kg
Intraperitoneal MOUSE LD50 540 mg/kg Inhalation RAT LC50 >5.2 mg/l air
Intravenous MOUSE LD50 >2025 mg/kg Skin RABBIT LD50 4100-8800 mg/kg
Skin RABBIT LD50 112 mg/kg RATS: LD50 >2000 mg/kg

Carcinogenic Anticipated human carcinogen Anticipated human carcinogen

SECTION XII. ECOLOGICAL INFORMATION

Fish toxicity Methyl Eugenol Malathion
Fish: 6000 ug/l 96 day(s) LC50 Fish: 96-hr LC50, rainbow trout
(mortality) rainbow trout, 110 ppb, LC50 Bluegill sunfish,
donaldson trout (oncorhynchusmykiss) 120 ppb

SECTION XIII. DISPOSAL CONSIDERATIONS

Disposal method Pesticide wastes are toxic and hazardous. Do not reuse container, dispose as hazardous waste according to local legislation.

SECTION XIV. TRANSPORT INFORMATION

Land transport ADR/RID UN-No 3077
Class: 9
Packaging group III
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S, (malathion)

Air transportation IATA/ICAO UN-No 3077
Class: 9
Packaging group III
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S, (malathion)

Maritime transport IMDG UN-No 3077
Class: 9
Packaging group III
EmS- No. F-A , S-F
Marine pollutant: Marine pollutant
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S, (malathion)

SECTION XV. OTHER REGULATORY INFORMATION

Federal and State Regulations: US Statements: Possible Carcinogen (US) California Prop. 65 carcinogen.

United States Regulatory Information

Other regulations: SARA Listed: No

Canada:

DSL: Yes

NDSL: No

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Other classifications: EU Additional Classification: Xn

Indication of Danger: Harmful

R: 22, 40 36/37/38

Risk Statements: Harmful if swallowed. Limited evidence of a carcinogenic effect. Irritating to eyes, respiratory system and skin.

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection.

SECTION XVI. OTHER INFORMATION

References:

Other special considerations:

Created: Dr N.A.M. van Beek

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