



MATERIAL SAFETY DATA SHEET

SECTION I: PRODUCT IDENTIFICATION

Product Name	BIO-X® Q'BUG
Active Ingredient	Etofenprox (technical)
Chemical Name	2-(4-ethoxyphenyl)-2-methylpropyl-3-phenoxybenzyl ether
Chemical Formula	Aryl-propyl benzyl ether

SECTION II: COMPOSITION

<u>Component</u>	<u>%w/w</u>
Etofenprox	1.10
Inert Ingredients	98.90

SECTION III: HAZARDS IDENTIFICATIONS

Skin contact	non-irritating (Rabbit)
Eye contact	non-irritating (Rabbit)
Skin sensitization	Not a sensitizer (Guinea Pig)
Carcinogenicity	Not likely to be carcinogenic to humans

SECTION IV: EMERGENCY & FIRST AID PROCEDURE

Eye Contact:	Flush eye immediately with steady running water for at least 15 mins
Skin Contact:	Immediately wash with soap & water
Inhalation:	Remove victims from area of exposure and move to fresh air
Ingestion:	Drink plenty of water. Do not induce vomiting

NOTE TO PHYSICIAN
Treat symptomatically

SECTION V: FIRE & EXPLOSION HAZARD DATA

Flash point:	Not applicable (non-flammable)
Extinguishing Media:	Not applicable
Special Fire Fighting Procedure:	Not applicable
Unusual Fire & Explosion Hazards:	Not applicable

SECTION VI: SPILL OR LEAKAGE

STEP TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED.
Hose off road surfaces to prevent accident or slippery surface.

SECTION VII: HANDLING & STORAGE

Keep out of reach of children. Keep container closed when not in use.
Store in a cool, dry place, away from direct sunlight and high temperature.

SECTION VIII: SPECIAL PROTECTION INFORMATION

Ventilation Requirements: General ventilation is adequate
Respiratory Protection: None normally required
Protective Gloves: None normally required
Eye Protection: None normally required

SECTION IX: PHYSICAL /CHEMICAL CHARACTERISTIC

Appearance: Milky white aqueous emulsion
Odor: Pleasant
pH at 25 deg C: 7.0 ± 1.0
Dispersibility in water: Completely dispersible
Viscosity (BF/LVT/#1/100rpm/30deg C): 4-6 cps
Specific Gravity: 1.0 ± 0.05

SECTION X: STABILITY & REACTIVITY DATA

Stability: Stable
Hazardous Decomposition Products: Oxides of carbon. Decomposition is very unlikely.
Hazardous Polymerization: Will not occur
Materials to Avoid: Acids
Conditions to Avoid: Excessive heat & prolong sunshine

SECTION XI: TOXICOLOGICAL INFORMATION

Acute Toxicity:
Ingestion LD₅₀ > 2,000mg/kg (OECD 420)
Inhalation LC₅₀ > 5,900mg/m³ air
Dermal Absorption LD₅₀ > 2,000mg/kg (OECD 402)

SECTION XII: ECOLOGICAL INFORMATION

Wildlife & Fish

(a) Mallard Duck LD₅₀ (oral) >2,000mg/kg

(b) Aquatic Animals

Species	TL _m value (ug/L, 48 hrs)
Carp	> 5,000
Goldfish	> 1,730
Ayu Fish	> 1,200
Water Flea	>40,000 (3hrs)
Short-necked Clam	>490,000

SECTION XIII: WASTE DISPOSAL METHOD

WASTE DISPOSAL METHOD

Collect and dispose in sewage system if local authorities permit.

SECTION XIV: TRANSPORTATION INFORMATION

SHIPPING INFORMATION: D.O.T. Not Regulated

SECTION XV: NATIONAL REGULATION AND REFERENCE

Not Applicable

SECTION XVI: OTHER INFORMATION

For Household Use