

Material Safety Data Sheet

FELOX 5% EC

Beta-Cyfluthrin 5% EC

SECTION 1. IDENTIFICATION

Trade Name: Felox

Product Name: Beta-Cyfluthrin 5% EC

Chemical Name :

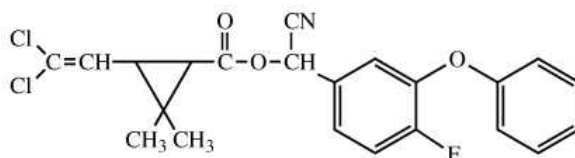
cyano(4-fluoro-3-phenoxyphenyl)methyl

3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate

CAS No.: 68359-37-5

Mol. Formula: $C_{22}H_{18}Cl_2FNO_3$

Structure:



SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

Substance	Conc.
Active ingredient	
Beta-Cyfluthrin	5%
Inert ingredient	
Emulsifier	10%
solvent	Up to 100%

SECTION 3. HAZARDS IDENTIFICATION

Symptoms of overexposure:

low acute toxicity insecticide. It is not sufficiently toxic to produce clearly recognizable clinical or laboratory signs of toxicity in man or other animals

SECTION 4.FIRST AID MEASURES

Eye	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Get medical attention.
Skin	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.
Ingestion	Do not give any liquid to the person. 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.
Inhalation:	Move person to fresh air. If person is not breathing, call an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.

Note to physician :No antidote available. Treat symptomatically.

SECTION 5.FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable: Water spray, Carbon dioxide (CO₂), Foam, Sand

5.2 Special hazards arising from the substance or mixture: In the event of fire the following may be released:, Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Hydrogen fluoride, Carbon monoxide (CO), Nitrogen oxides (NO_x)

5.3 Advice for firefighters

Special protective equipment for firefighters: In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus. Further information: Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6.ACIDENTAL RELEASE MEASURES

Dealing with spills and disposals may result in the potential for increased personal exposure. Protective clothing and equipment as described in the PERSONAL PROTECTION section should be worn. Avoid contact with spilled material or contaminated surfaces. Keep people and animals away. Prevent spillage from spreading or entering waterways and underground drains. Take up with absorbent material such as sawdust, peat, or chemical binding agent. Fill material, along with any contaminated soil etc., into sealable containers.

Clean affected area with an aqueous detergent and a small amount of water. Absorb this with hydrated lime and place in a sealable container. Spread hydrated lime over the affected area. Do not smoke, eat or drink during clean-up operations.

SECTION 7.HANDLING AND STORAGE

Handling: Keep out of reach of children. Storage: Store away from food, drink or animal feeding stuffs. Store below 30°C. Keep away from heat or moisture. Store in tightly closed, original container in a safe, well ventilated area, as cool as possible. Do not store for prolonged periods in direct sunlight. Store so that unauthorised persons do not have access.

SECTION 8.EXPOSURE CONTROL/PERSONAL PROTECTION

Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly with soap and water after handling.

Eye protection: To avoid eye contact, wear chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Skin protection: To avoid skin contact, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

SECTION 9.PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Color	yellow
Persistent foam test	Accepted (CIPAC F p. 140 MT43)
Density	0.86 gm/cm ³ (CIPAC F p.11 MT 3)
pH value	5.5 (CIPAC F p.205 MT 75)
Flash point	65°C

SECTION 10. STABILITY AND REACTIVITY

Stability	Stable under normal use and storage conditions
Hazardous polymerization	Will not occur
Conditions to avoid	None known

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	LD50 for rats >2500 mg/kg
Skin irritation	> 4000mg/kg
Eye irritation	Non-irritant
Sensitization	Not a skin sensitizer (Guinea pig)
Reproductive/ developmental effects:	None observed
Chronic/Subchronic toxicity:	None observed
Carcinogenicity:	None observed.
Other toxicity information:	None.

SECTION 12. ECOLOGICAL INFORMATION

Beta-cyfluthrin is very toxic to aquatic organisms. It is dangerous to bees. It has a low toxicity to birds, mammals and earthworms. DO NOT contaminate streams, rivers, or waterways with the chemical or used containers.

Fish toxicity: LC50 (96 h): 0.33 µg/L; Golden orfe (*Leuciscus idus*) LC50 (96 h): 0.089 µg/L; Rainbow trout (*Oncorhynchus mykiss*) LC50 (96 h): 0.028 µg/L; Bluegill sunfish (*Lepomis macrochirus*)

Daphnia toxicity: EC50 (48 h): 0.29 µg/L; Water flea (*Daphnia magna*)

Toxicity to algae: EC50 (96 h) >10 µg/L; Green algae (*Scenedesmus subspicatus*)

Bird toxicity: Acute oral LD50 for Japanese quail >2000 mg/kg

Bee toxicity: LD50 < 0.1 µg/bee

Other: None

Environmental fate, persistence and degradation: The degradation of betacyfluthrin is rapid in different soils. Leaching behaviour can be classified as immobile. The bioconcentration factor (BCF) of betacyfluthrin is 506. It is readily biodegradable.

SECTION 13.DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

Contaminated packaging :Not completely emptied packagings should be disposed of as hazardous waste

SECTION 14.TRANSPORT INFORMATION

Transport Classification: Road & Rail (ADG), Sea (IMDG)

UN NO.: 3082

Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BETA-CYFLUTHRIN SOLUTION)

UN class: 9

Packing Group: III

SECTION 15.REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Further information WHO-classification: II (Moderately hazardous)

SECTION 16.FURTHER INFORMATION

The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements.

Use according to label instructions.