

MARGOSOM® Tech
Azadirachtin Technical
Bio Insecticide

Introducing MARGOSOM® Technical

MARGOSOM® Tech is a BioInsecticide concentrate, based on botanical extract of *Azadirachta indica* used to manufacture various formulations of Azadirachtin.

MARGOSOM® Tech has Azadirachtin and other neem bitters as active ingredients and has concentration of 10-20% total Azadirachtin.

Azadirachtin is a highly oxidised tetranortriterpenoid which has oxygen functionality, comprising of an enol ether, acetal, hemiacetal, and tetra-substituted oxirane as well as a variety of carboxylic esters.

Mode of Action

MARGOSOM® Tech disrupts the growth cycles of insects and deters them from feeding on plants.

The mode of action of azadirachtin may be due to interference with the neuroendocrine system controlling ecdysone and juvenile hormone synthesis. It also inhibits the release of ecdysone from the hormone-producing gland of insects resulting in moulting inhibition thereby antifeedant action is seen. In addition, azadirachtin causes inhibition of chitin synthesis.

A Historical Brief

Azadirachtin was first extracted from the Indian neem tree in 1968, but its structure was not correctly determined until 1985.

In India, Bambarkar in 1990 presented a table showing the activity of neem against twenty species of insect pests, ten nematodes and several fungi.

Method of Application

This is the raw material used for making various other formulations of Azadirachtin.

Target Pests

Sucking insects like Thrips, Jassids, Aphids and Whiteflies, Flea beetles and other chewing insects like *Helicoverpa arimigera*, *Helicoverpa zea*, *Spodoptera litura*, *Spodoptera exigua*, *Earias spp.*, *Achae janta*, Bunch caterpillars, Leaf Folders, Army worm, Cut Worm

Crops

MARGOSOM[®]Tech is used as the raw material for formulating other Azadirachtin concentrations which are suitable for application on Cereals , Millets , Pulses, Oilseeds, Fibre Crops , Sugar Crops , Forage Crops , Plantation crops ,Vegetables, Fruits, Spices , Flowers , Medicinal crops , Aromatic Crops , Orchards and Ornamentals.

Compatibility

MARGOSOM[®] Tech is the raw material to make other formulations and is compatible with other botanical BioPesticides

Shelf Life

MARGOSOM[®] Tech is stable for a period of 24 months from the date of manufacturing.

Mass Composition

CONSTITUENT	W/W %	FUNCTION
Azadirachtin Tech	10.0% min	Active
Moisture	0.50 %	Inactive
Limonoids and other volatile materials	4.50 %	Active
Other ingredients	q.s	Inactive

BIOLOGICAL COMPOSITION

CONSTITUENT	POTENCY
Azadirachtin	100,000 ppm

Free from Salmonella, Shigella , E.Coli

Cautions for handling and use of product

1. Direct incidence of MARGOSOM[®] Tech on eyes may be dangerous. It is strongly recommended that the operator wears eye goggles, face mask and protective clothing while handling the product.
2. Avoid inhalation and skin contact while diluting as there could be spillage / splashes of the product
3. Mixing and formulation equipment is to be thoroughly rinsed with solvents and detergent before using the same equipment for spraying other pesticides.

4. Surplus solution should not be disposed in crop lands / stagnant water / flowing water where there is a possibility of causing pollution to natural resources.
5. Do not eat / drink / smoke during formulation.

Symptoms and Antidotes

Symptoms: Occasional symptoms include head ache and nausea.

Antidote: In the case of ingestion: symptomatic treatment is advised. In the case of contact with Eyes: Flush with water liberally for 20 minutes. In case of Skin contact, wash the affected area with plenty of water and soap.

Citations

There are many citations in public domain on effectiveness of *Azadirachtin* as a Bio Insecticide.

Commitment to Nature

- MARGOSOM[®] Tech is safe to natural parasites, pollinators and predators.
- MARGOSOM[®] Tech can be used for formulation other formulations that are an effective component in IPM programmes, thereby leading to a reduction in use of chemical pesticides and creating a safer environment.
- MARGOSOM[®] Tech does not lead to residue problems and doesn't cause resistance or resurgence problems.

Benefits from MARGOSOM[®] 1% EC

- MARGOSOM[®] 10% Tech is used as the raw material to formulate other formulations
- Pest reduction leads to improved plant health and thereby increased crop productivity.
- MARGOSOM[®] 10 % Tech is pet friendly , eco friendly and infant friendly