

ARAB REPUBLIC OF EGYPT
MINISTRY OF AGRICULTURE AND
LAND RECALMATION
AGRICULTURAL
PESTICIDE COMMITTEE

Technical Data Sheet
For Experimentation

ActLim 1.9% EC

*All Papers Must Be Stumped

INTRODUCTION

Common Name:

Emamectin benzoate

Use:

Insecticide

Company Name:	:	Nanjing Essence Fine Chemical
Situation	:	
Nationality	:	China
Address	:	No. 58 nanhu road, Nanjing 210017, Jiangsu, China
Remarks	:	

APPLICANT

Name:	:	International center for marketing
Address	:	43 Mahmoud Khairy – Nasr City
Nationality	:	Egyptian
Tel.	:	02224054740
Authority cert.	:	
Identity cert.	:	
Remarks	:	

Chemistry Of The Product

SYNONYMS

Common Name	:	Emamectin benzoate
Code Number	:	119791-41-2j formerly 123997- 28-4
Trade Name	:	ActLim 1.9 EC

Initial Regist.	:	
Chemical Class	:	Avermectins
Local Synonyms	:	

<u>Chemical Name:</u>	Avermectins b1, 4''-deoxy-4''- (methyl amino) -, (4''R)-, benzoate (salt)
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<u>Structural Formula:</u>	C56 H81NO15 (B1a) ; C55 H79 No15 (B1b)
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Physical and Chemical Prosperities:

Molecular Weight	:	1008.3 (B1a); 994.2 (B1b)
Physical Form	:	Liquid
Technical Purity	:	95%
Vapour Pressure	:	4x10 ⁻³ mpa (21°c)
Colour & Odour	:	Yellow and characteristic
M.P Or b.p	:	N/A
Density	:	0.90 g/ml at 77°f (25°c)
Solubility	:	N/A
Octanol Number	:	N/A

Type of Formulations and Specifications

CONTENTS	TYPES OF FORMULATIONS		
	EC		
ACTIVE INGREDIENT	109%		
INERT INGREDIENT	98.1%		

SPECIFICATIONS OF FORMULATIONS:

Appearance	:	Yellow liquid
Alkalinity or Acidity	:	N/A
Suspensibility	:	---- N/A
Emulsification Prosperities	:	Emulsion concentrate
Density	:	0.90 g/ml at (25'c)
Viscosity	:	N/A
Flash Point	:	143°F
Freeze Point	:	N/A
Wettability	:	N/A
Practice Size	:	N/A
Compatability	:	N/A
Heat Stability	:	Avoid Heat
Storage Stability	:	Stable
Mixing Prosperities	:	N/A
Methods of Analysis	:	Hplc (Resid. And. Methods)
Levels of Impurities	:	N/A

Biological Spectrum

Pesticidal efficacy (list of pests):

Beet army worm – cotton bollworm – used to control lepidotero, on vegetables

Mode of Action:

Non – systemic insecticide wich penetrates leaf tissues by translaminar movement.
Paralyses the icpidoptera, wich stop feeding within hours of ingestion, and die 2-4 day.

Uses and Recommendations:

Target Pest	CROP	APPLICATION RATE / FADDAN	APPLICATION METHOD
Cotton bollworm	Tomato	250 cm / Faddan	Spraying

Phytotoxicity: Non – phytotoxic when used as recommended

Toxicological Studies

Acute Mammalian Toxicity:

Acute Toxicity	ANIMAL	LD 50mg/Kg body weight	
		Technical	Form
Oral	Rat	76-89 mg/kg	2950mg/kg/b.w
Dermal	Rabbit	>2000 mg/kg	>2000 mg/kg b.w
Inhalation (mg/m ³ /2H)	Rat	2-12-4.44 mg/ m ³	9.6mg/1 air-4hours

Symptoms: EYE: Severly irritating (Rabbit)

SKIN: Severly irritating (Rabbit)

WHO Classification	Toxicity Category			Label Signal Word		
	High I	Mod II	Low III	Danger	Warning	Caution
Techn.		√				
Form			√			
Impurities						√

Chronic Toxicity

Carcinogenicity (WHO – IARC)

Non carcinogenicity

Delayed neurotoxicity (WHO)

N/A

Hormonal disruption (WHO)

N/A

Tratogenicity & Reproduction (WHO)

Non tratogenicity and Reproduction

Mutagenicity (WHO)

Non mutagenicity

Acceptable Daily Intake (ADI)

0.0025 mg/kg

Pre – Harvest Interval (PHI) 7 days

ECOTOXICOLOGY

1- Aquatic Organism

Very toxic to aquatic organisms

2- Earthworms

> 1000 mg/kg

3- Honey bees

Toxic to bees

4- Birds

8 day dietary – mallard duck Lc50/EC50 570 ppm

5- Parasites and Predators

Water flea Lc50/EC50 0.001 ppm

Environmental Chemistry

Fate in soil:

Rapidly Degraded

Effect on Microbial Process:

Methods of Res. Analysis: Hplc ; and . methods.

Fate in Plants:

Metabolism has been investigated in lettuce, cabbage. It is non – systemic, and rapidly degrades in sunlight to varioms complex respidues in wich undergraded.

Fate in Water:

Toxicity to aquatic organs:

Rate of hydrolysis at PH levels: N/A

Photo degradation Rate:

Methods of Analysis:

Fate in Animal:

Is partially metabolized but rapidly cleared (Dt so following oral dosing 34-51h)

Safety Handling Storage and Disposal

Storage:

Store the material in a well- ventilated, secure area out of reach of children and domestic animals . don't store food, beverage or tobacco products in the storage area.

Shelf Life: N/A

Handling Precautions:

Wash thoroughly with soap water after handling.

Containers (Lining): N/A

Signs and Symptoms of Over Exposure: exposure levels are not known, under any other circumstances where air – purifying respirators may not provide adequate protection.

Note to Physician: if poisoning is suspected, immediately contact aphysicain, the nearest hospital tells the person contacted the complete product name.

FIRST AID:

IF Swallowed. Give a large quantity of water to drink and induce vomiting

IF In eyes. Immediately rinse with a large amount of running water.

IF On Skin. Wash with plenty of soap and water.

IF Inhaled move victim from contaminated area to fresh air.

ANTIDOTE: no specific antidote exists for Emamectin benzoate

REMARKS: