



## TECHNICAL DATA BULLETIN

### PRODUCT TECHNICAL INFORMATION AND APPLICATIONS

# MALCHEM<sup>®</sup> 570EC

(Malathion 570 g/L "EC")

#### 1. INTRODUCTION

**MALCHEM 570EC** is an emulsifiable concentrate insecticide formulation containing 570 g/L of the organophosphorus active ingredient *Malathion*. MALCHEM 570EC is used in Public Health for the control of both flying and crawling insect pests including flies, mosquitoes, cockroaches ants, ticks, mites, spiders and many other pests in household, animal places and warehouses.

#### 2. ACTIVE INGREDIENT

##### Common name

##### Malathion

Chemical Group

Organophosphorus

CAS Registry No.

121-75-5

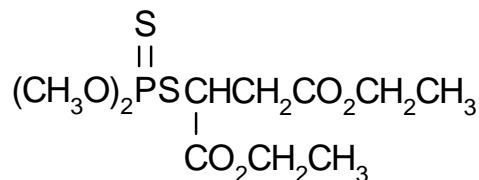
Molecular Formula

C<sub>10</sub> H<sub>19</sub> O<sub>6</sub> PS<sub>2</sub>

Chemical Name(IUPAC)

diethyl (dimethoxythiophosphorylthio)succinate; S-1,2-bis(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate

Structural Formula



Molecular weight

330.4

Vapour Pressure

5.3 mPa (30 °C)

K<sub>ow</sub> log P

2.75

Acute oral LD<sub>50</sub>, Male rat

1375-5500 mg/kg



### 3. PHYSIOCHEMICAL PROPERTIES OF THE PRODUCT:

Assay:	"Malathion" 570 ± 25 g/L
Appearance	Clear light yellow liquid free of visible impurities
Odour	Slight Aromatic
Density	1.064 – 1.076 g/ml
Flash Point	45.5°C
Water contents	<2.0 g/Kg
Acidity as H <sub>2</sub> SO <sub>4</sub>	<5.0 g/Kg

### 4. USES:

**MALCHEM 570EC** has a broad spectrum of activity and relativity, low mammalian toxicity. It is used for the control of major disease vectors in public health programmes as well as the protection of stored grains from insect damages. It is also used for the control of a number of arthropods in animal houses beside animal ectoparasites. The most important pests controlled by Malchem 570EC include mosquitoes, ants, ticks, mites, spiders and many others. Malchem 570EC is very effective in controlling adult mosquitoes.

### 5. MODE OF ACTION:

**MALCHEM 570EC** is an organophosphate insecticide. It is non-systemic with contact, stomach and respiratory action as a cholinesterase inhibitor.



6. APPLICATION:

**MALCHEM 570EC** is applied as a spray after diluted with water diesel oil or kerosene. The choice of diluted depends on the application method and the target pest.

The following table can be used as a guide for the application of **MALCHEM 570EC**

Target Pests	Application Rate	Application Technique
Adult Mosquitoes	Dilute 1 : 28 and spray 50 – 100 ml solution /m <sup>2</sup>	Residual surface spray
	200 – 1,200 ml/ha	Cold aerosols
	900 – 1,000 ml/ha	Thermal fogs
Mosquitoes Larvae	400 – 1,700 ml/ha	Water surface spray
Flies	450 ml / 5 L of water	Residual spray at the rate of 50-100 ml / m <sup>2</sup>
	1,200 ml / ha	Space Spray
Fleas in dwellings	175 ml / 5 L of water	Residual spray at the rate of 50 – 100 ml / m <sup>2</sup>
Fleas on pets	20 ml / 5 L of water	Dip
	45 ml / 5 L of water	Spray
Bed bugs	175 ml / 5 L of water	Indoor residual spray
Ticks and mites	175 ml / 5 L of water	Indoor residual spray
Cockroaches	275 ml / 5 L of water	Residual spray
Spiders	275 ml / 5 L of diluent	Residual spray
Store Pests	400 ml / 10 L of water	Residual spray in the interior of the empty ware house specially cracks and protected places

For cold aerosols, thermal fogs and space sprays the amount of diluents to add to the product is determined by the application equipment. However it is recommended to apply the product at 2 – 5% active ingredient concentration when using fog, aerosol or mist sprays.



#### 7. COMPATIBILITY:

**Malchem** 570EC can be mixed with other insecticides such as pyrethrins, Fenitrothion and Piperonyl Butoxide (synergizer). However, it is incompatible with alkaline materials.

#### 8. HANDLING, STORAGE AND TRANSPORTATION

Personnel handling **Malchem** 570EC should wear clean protective gloves, clothing, goggles and suitable respirator. The product should be stored in its original container in a cool dry and ventilated store away from sparkler heat devices. It must be kept under lock and key away from food stuffs and animal feed.

Adequate washing facilities should be close to the site of handling. Eating, drinking and smoking should be prohibited during handling.

#### 9. OTHER INFORMATION

Buyer assumes all responsibility for safety and use not in accordance with the product label instructions