

TECHNICAL DATA BULLETIN

PRODUCT TECHNICAL INFORMATION AND APPLICATIONS

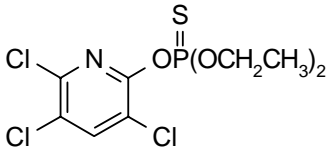
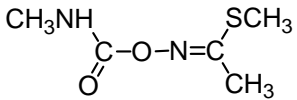
KNOCKDOWN[®] 340EC

(CHLORPYRIFOS 24%+ METHOMYL 10% w/v)

1. INTRODUCTION:

KnockDown 340EC is an emulsifiable concentrate formulation of the two active ingredients chlorpyrifos and Methomyl, belonging to two different chemical groups, Organophosphorus and Carbamate. It is used as an insecticide and acaricide for the control of a wide range of pests in a large number of agriculture crops and ornamental plants.

2. ACTIVE INGREDIENTS:

Common Name	Chlorpyrifos	Methomyl
Chemical Group	Organophosphate	Carbamate
CAS Registry No.	2921 - 88 - 2	16752-77-5
Molecular Formula	C ₉ H ₁₁ Cl ₃ NO ₃ PS	C ₅ H ₁₀ N ₂ O ₂ S
Structural Formula		
Molecular weight	350.6	162.2
Vapour Pressure	2.7 mPa at 25 C	0.72 mPa (25 °C)
K_{ow} log P	4.7	0.093
Acute oral LD₅₀, Male rat	135 – 163 mg / Kg	34 mg/Kg

3. PHYSIOCHEMICAL PROPERTIES OF THE PRODUCT:

Assay:	Chlorpyrifos:	240	12 g / L
	Methomyl:	100	6 g / L
Appearance:	Clear Black liquid free of visible impurities		
Density (Kg/L):	0.9950 – 1.1150		
Acidity as H ₂ SO ₄ :	<5.0 g/Kg		
Water contents:	< 5.0 g/Kg		
Flash point:	>25 C		

4. MODE OF ACTION:

KnockDown 340EC is a ready made mixture of the two active ingredients chlorpyrifos and methomyl. Chlorpyrifos is Cholinesterase inhibitor, non-systemic insecticide with contact, stomach, and respiratory action. Methomyl is a systemic insecticide and acaricide that acts also as a Cholinesterase inhibitor, with contact and stomach action.

5. USES:

KnockDown 340EC is used for the control of wide range insect pests (particularly Lepidoptera, Hemiptera, Homoptera, Diptera and Coleoptera) and spider mites in fruit, vines, olives, hops, vegetables, ornamentals, field crops, cucurbits, flax, cotton, tobacco, soybeans, etc. Also used for control of flies in animal and poultry houses and dairies.

6. APPLICATION:

KnockDown 340EC is applied as a spray after being diluted with water. The application rate and frequency of application are dependent on the target pest/s and the degree of infestation. However, the following table can be used as a guide for the application of **KnockDown** 340EC:

Recommendations For Use:

Crop	Pests	Rate of use	PHI
Tomato	White fly, Aphids, Tomato fruit worm	100 – 150 ml / 100 L of water	14 days
Alfalfa & Fodder Crops	Cut worm	150 – 200 ml/100 L of water (2 L/ha through Pivot Irrigation system or 1.5 L/ha through sprayer)	21 days
Cotton & Sugar Beat	Aphids, Cut worm	100 – 150 ml / 100 L of water	21 days
Citrus	Leaf Miner, White fly, Aphids, Scale Insects	100 – 150 ml / 100 L of water	30 days
Ornamentals	Aphids, Cutworm	100 – 150 ml/100 L of water	-

7. HARVEST INTERVAL:

The harvest interval for this product ranges from 14 - 30 days, depending on the treated crop; details are shown in the product label.



8. COMPATIBILITY:

KnockDown 340EC can be tank mixed with other pesticides. However, it is incompatible with alkaline materials.

9. PHYTOTOXICITY:

KnockDown 340EC is not phytotoxic to most plant species when used as recommended. However, poinsettias, azaleas, roses, lemon, peach, fig, and some varieties of apple may be injured. For such plants it is always advisable to carry out small test for phytotoxicity before large-scale application.

10. HANDLING, STORAGE AND TRANSPORTATION:

Personnel handling **KnockDown** 340EC should wear proper protective clothing including overall, protective gloves and respirators. The product should be stored in its original containers 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.

KnockDown 340EC should be transported in clearly labeled leaf-proof containers.