

# TERMIREPELTM

NON-HAZARDOUS TERMITE AND INSECT REPELLANT

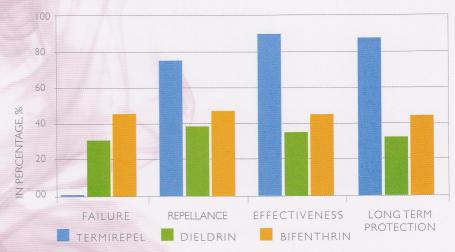
### KEY FEATURES

- •For all polymer based applications
- •Long term protection against termites and other insects
- EVA-based masterbatch
- Ease of incorporation into extrusion process
- Available also as customized client specific masterbatch
- ·Low vapor pressure
- •Low concentrations required
- Electrically neutral
- •No migration outside the polymer matrix
- ·Soil stable, does not degrade
- •Soil condition does not affect product
- •No pyrethroids or insecticides used
- Superior to armoring and existing alternatives
- Repellence rather than killing insects

## SAFETY PARAMETERS

- •TERMIREPEL® contains no lead or heavy metal toxic compounds
- •TERMIREPEL® contains no toxic or environmentally harmful pesticides or insecticides
- Product is non water soluble





PERFORMANCE IN COMPARISON TO TOXIC PRODUCTS
Comparison of TERMIREPEL® against toxic pyrethroids



## TOXICOLOGY

TERMIREPEL® is non-toxic to rats, rabbits and guinea pigs. It has no significant effect on birds. It is non-toxic at recommended levels to aquatic organisms. Also it is relatively harmless to non-target and beneficial organisms. TERMIREPEL® is completely non-toxic to humans as well as other animals.

## BIOACTIVITY

It acts as a broad spectrum bio repellent controlling more than 600 species of insects/pests including termites, caterpillars, beetles, whiteflies, leafhoppers, aphids, mites, thrips, leaf borer, leaf folders and many more.

## **ENVIRONMENTAL SAFETY**

Our approach has been to use environmentally safe products which do not enter into ground water resources or poison the environment.

TERMIREPEL® masterbatches are safe to handle, however, because of it's aversive properties, normal precautions should be taken to prevent it from adhering to the skin. When handling these masterbatches, the technician should wear rubber gloves, long sleeve lab coat or similar, and eye protection. If products should come into contact with the skin, wash with copious amounts of water and consult a physician. So, bearing in mind that this product is intended to be extremely objectionable to all insects, it is nonetheless safe even if ingested. Hence, these masterbatches can even be ingested without harm.



TOXICITY COMPARISON OF TERMIREPEL® AGAINST

OTHER INSECTICIDES

## **ORAL TOXICITY**

	TERMIREPEL®	PERMETHRIN	DIELDRIN	BIFENTHRIN
LDS0 Oral (mg/kg), Rat	>45,000	>5000	46	56

TERMIREPEL PERMETHRIN DIELDRIN BIFENTHRIN



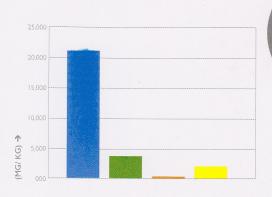
## **DERMAL TOXICITY**

	TERMIREPEL®	PERMETHRIN	DIELDRIN	BIFENTHRIN
LD50 Dermal (mg/kg), Rat	>22,000	>4000	90	>2000

TERMIREPEL PERMETHRIN DIELDRIN BIFENTHRIN

# 45,000 40,000 35,000 30,000 25,000 15,000 10,000 5,000 000

LD 50 ORAL, RAT

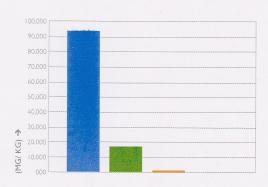


LD 50 DERMAL, RAT



	TERMIREPEL®	PERMETHRIN	DIELDRIN	BIFENTHRIN
LC50 Inhalation (mg/m3/4 hrs), Mouse	>100,000	>23,500	13	No Info.

TERMIREPEL PERMETHRIN DIELDRIN

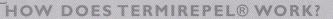


### WHY TERMIREPEL®?



Termites are undisputedly the most destructive of all structural pests. The damage they cause costs 10's of millions of dollars each year. Until now the only remedy was toxic and environmentally-unsound pesticides. Instead, TERMIREPEL® thwarts termites without killing them and without creating a harmful or dangerous environment.

TERMIREPEL® is both repellent to insects and disrupts the normal life-cycles. Because of the unique attributes of TERMIREPEL®, it does not poison insects, or the environment, like pesticides or insecticides.





TERMIREPEL® does not kill insects, but instead, it repels and disrupts their feeding, growth and reproduction, and deters hatching and ecdysis (molting). TERMIREPEL® does not kill pests, but simply breaks the life-cycle and inhibits feeding. It basically incapacitates insects rather than killing them directly

TERMIREPEL® works in six modes of action on insects:

**Repellence** - TERMIREPEL® is a repellent and insects avoid treated areas. Termites will not tunnel through or walk on an area covered with TERMIREPEL®

**Feeding disruption** - TERMIREPEL® disturbs termite's eating because they find the taste and smell of treated areas extremely unpleasant

**Oviposition deterrence** - TERMIREPEL® impairs the ability of male and female termites and insects to reproduce, and females will not lay eggs when in the presence of TERMIREPEL®

**Growth inhibition** - TERMIREPEL® is structurally similar to insect hormones called "ecdysones" which control the process of metamorphosis as the insects pass from larva to pupa to adult. Metamorphosis requires the careful synchronization of many hormones and other physiological changes to be successful, and TERMIREPEL® is an "ecdysone blocker". It blocks the insect's production and release of these vital hormones. Insects then will not molt, thus breaking their life cycle

Mating disruption
Chemo-sterilization





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