MATERIAL SAFETY DATA SHEET

Date of Issue: June 2012
MSDS No. FMC/HGCollars/1

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **HOMEGUARD® COLLARS**

Other Names: Bifenthrin.
Use: For the protection of service penetrations from concealed termite entry in buildings and other structures.
Company: FMC Australasia Pty Ltd.
Address: 5 Palmer Place, Murarrie, Qld 4172
Telephone Number: 07 3908 9208 **Fax Number:** 07 3908 9221
Emergency Telephone Number: 1800 033 111 (All hours - Australia wide).

SECTION 2 HAZARDS IDENTIFICATION

Not classified as hazardous according to criteria of Safe Work Australia.
Not classified as a Dangerous Good according to the ADG Code.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

CHEMICAL	*CAS NUMBER*	*PROPORTION*
Bifenthrin	82657-04-3	1 g/kg
Other ingredients determined not to be hazardous	mixture	To 100 %

SECTION 4 FIRST AID MEASURES

FIRST AID

Swallowed: If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.

Eye: Particulates may scratch eye surfaces and/or cause mechanical irritation. Remove from eye as for any foreign object. If irritation persists, obtain medical attention.

Skin: After handling, and before eating, drinking, smoking or going to the toilet wash with soap and water.

Inhaled: In case of adverse exposure to vapours that may be formed at elevated temperatures, remove patient to fresh air. If breathing discomfort occurs, obtain medical attention.

Advice to Doctors: Concern should be taken of the physical damage that the collars may cause if ingested. The plastic sheeting is polypropylene which is considered non-toxic. Bifenthrin, the active ingredient in this product, is a pyrethroid insecticide. The level of bifenthrin in the sheeting (0.1%) is considered to be so low as to be considered non-toxic, and tests have shown that the bifenthrin is not available for release from the sheeting. Treatment is otherwise symptomatic and supportive.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: Thermal decomposition and burning may produce toxic by-products.
Extinguishing media: Foam, CO_2 or dry chemical. Soft stream water fog if no alternatives. Contain all runoff.

SECTION 5 FIRE FIGHTING MEASURES (Continued)

Hazards from combustion products: On burning, will emit toxic fumes of carbon monoxide, carbon dioxide, hydrogen chloride, chlorine, fluorine and hydrogen fluoride etc.
Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe or contact smoke, gases or vapours generated.

SECTION 6 ACCIDENTIAL RELEASE MEASURES

Emergency procedures: Pick up collars. If unable to use as directed on the label, seal collars in a plastic bag. Wash hands and arms with soap and water after handling collars.
Material and methods for containment and cleanup procedures: Not applicable to this product.
DO NOT allow collars to enter sewers, drains, dams, creeks or any other waterways.

SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling: Generally no special precautions are required. Wash hands after use.

Conditions for Safe Storage: Store in closed original packaging, in a cool, well ventilated area away from children, animals, food and feedstuffs. Do not store for prolonged periods in direct sunlight. Do not use or store near heat, open flame or hot surfaces. Do NOT allow product to enter sewers, drains, creeks or any other waterways.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards:
No exposure standard for bifenthrin has been established by Safe Work Australia.
Biological Limit Values:
No biological limit allocated.

Engineering controls:
Use in ventilated areas.

Personal Protective equipment (PPE):
Work Clothing: No special protective clothing is required. As a good work practice, wear clothing that minimises skin contact with the collars.

Personal Hygiene: Wash hands and arms before eating, drinking or smoking.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light Blue Circular collars (40, 50, 80 & 100 mm inner diameter).
Odour:	No odour.
Boiling point:	Not relevant - solid at ambient temperatures.
Freezing point:	Not relevant - solid at ambient temperatures.
Specific Gravity:	930 g/m^3.
pH:	Not available.
Solubility in Water:	Not soluble. Provides a barrier to water.
Flammability:	This material may support combustion at elevated temperatures.
Corrosive hazard:	Non corrosive; compatible with stainless steel, polyethylene etc.
Flashpoint (°C):	> 215°C (estimated).
Flammability Limits (%):	Not established, but may support combustion at elevated temperatures.
Poisons Schedule:	Product is not a scheduled poison.

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.
Conditions to avoid: Keep away from all sources of heat. Keep out of the sun.
Incompatible materials: No particular materials to avoid.

SECTION 10 STABILITY AND REACTIVITY (Continued)

Hazardous decomposition products: When the product is heated to high temperatures, the active constituent will decompose and emit toxic fumes.
Hazardous reactions: No particular reactions to avoid.

SECTION 11 TOXICOLOGICAL INFORMATION

Potential Health Effects:
This product is expected to have low toxicity, and if swallowed the mechanical effects are expected to be of greater concern. Bifenthrin, the active ingredient in this product is present at 0.1%. Ingestion of large doses of bifenthrin by laboratory animals produced signs of toxicity which included clonic convulsions, tremors and bloody nasal discharge. But it is not likely to be physically possible to consume large enough quantities of bifenthrin by ingesting the collars.

Acute

Swallowed:	Not expected to be toxic.
Eye:	May produce mechanical irritation to the eye.
Skin:	This product has a low dermal toxicity.
Inhaled:	Unlikely to cause inhalation toxicity unless the product is at elevated temperatures or is burned. Vapours and gases released under thermal decomposition may be toxic.

Chronic: No data available on this product. Bifenthrin the active ingredient in this product is present at 0.1%. In studies with laboratory animals, Bifenthrin did not cause teratogenicity or reproductive toxicity. Tremors were associated with repeated exposure of dogs, rats, rabbits and mice to Bifenthrin. The overall results from a battery of genotoxicity studies indicate that Bifenthrin is not considered to be genotoxic. Ames test results were negative.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: The active ingredient, Bifenthrin, is highly toxic to fish and aquatic arthropods with LC_{50} values ranging from 0.0038 µg/L to 17.8 µg/L. In general, the aquatic arthropods are the most sensitive species. Care should be taken to avoid contamination of the aquatic environment. Bifenthrin had no effect on molluscs at its limit of water solubility. Bifenthrin is only slightly toxic to both waterfowl and upland game birds with LC_{50} values range from 1800 mg/kg to > 2,150 mg/kg. Do not contaminate sewers, drains, dams, creeks or any other waterways with product.

Environmental Properties: The active ingredient, Bifenthrin, degrades at a moderate rate in agricultural soils (t½ = 50 to 205 days), and more rapidly on the surface of bare soils (t½ = 7 to 62 days). Bifenthrin is tightly bound in most soils and has extremely low water solubility.

SECTION 13 DISPOSAL CONSIDERATIONS

Spills & Disposal: In the case of spillage, pick up the spilled material and place in sealed plastic bags and dispose of waste as indicated below. Keep material out of streams and sewers. Dispose of wastes in accordance with the requirements of Local or State Waste Management Authorities via an approved industrial waste disposal site.

Always put unused collars back into the original packaging for re-use.

Dangerous to Fish: Do NOT allow product to enter sewers, drains, dams, creeks or any other waterways.

SECTION 14 TRANSPORT INFORMATION

Homeguard Collars are not classified as a Dangerous Good by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

SECTION 15 REGULATORY INFORMATION

Not classified as a hazardous substance according to criteria of Safe Work Australia.
Under the Standard for Uniform Scheduling of Medicines and Poisons, this product is not a scheduled poison.
This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 61290.
Product is not classified as a Dangerous Good according to the ADG Code (7th Ed), the International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA).

SECTION 16 OTHER INFORMATION

Issue Date: 8 June 2012 (5 yr update).

Key to abbreviations and acronyms used in this MSDS:

ADG Code: Australian Dangerous Goods Code (for the transport of Dangerous Goods by Road and Rail).
Carcinogen: An agent which is responsible for the formation of a cancer.
Genotoxic: Capable of causing damage to genetic material, such as DNA.
HSIS: Hazardous Substances information System.
Lacrimation: The production, secretion, and shedding of tears.
Lavage: A general term referring to cleaning or rinsing.
Mutagen: An agent capable of producing a mutation.
NOHSC: National Occupational Health and Safety Commission.
Pneumonitis: A general term that refers to inflammation of lung tissue.
PPE: Personal protective equipment.
Teratogen: An agent capable of causing abnormalities in a developing foetus.
TWA: The Time Weighted Average airborne concentration over an eight-hour working day, for a five day working week over an entire working life.
Safe Work Australia: Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC).

References

1. "Search Hazardous Substances". HSIS - Safe Work Australia website. (2012).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

End of MSDS