

MATERIAL SAFETY DATA SHEET

Hazardous according to criteria of NOHSC Australia

COMPANY DETAILS

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Date of Issue: September 2003
MSDS No. FMC/BIFAQU/2

Company: FMC (Chemicals) Pty Ltd.
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Emergency Telephone Number: 1800 033 111 (All hours - Australia wide)

IDENTIFICATION

Product Name: BIFLEX AQUA
Water Based Termiticide & Insecticide

Physical Description/Properties:

Other Names: Bifenthrin 80F
Common Name: Bifenthrin
Product Code: FMC 54800
Appearance: Beige to white liquid.
Boiling point: Not available
Specific Gravity: 1.024 at 20°C
Flashpoint (°C): >100°C Not flammable
Flammability Limits (%): Not available
Solubility in Water: Insoluble. Product suspends in water,
Corrosive hazard: Non corrosive; compatible with aluminium, high density polyethylene (HDPE), glass & phenolic lined steel containers.
Use: Suspensions concentrate Pest Control Insecticide.
Poisons Schedule: S6

Ingredients:

Chemical	CAS Number	Proportion
Bifenthrin	82657-04-3	80 g/L
Other ingredients determined to be non-hazardous	-	5 - 20%
Water	7732-18-5	> 60%

HEALTH HAZARD INFORMATION

Health Effects: Studies with laboratory animals have shown this product to be slightly toxic. Ingestion of large doses of bifenthrin by laboratory animals produced signs of toxicity which included clonic convulsions, tremors, and bloody nasal discharge.

Risk Phrases: R22 Harmful if swallowed.
R20 Harmful by inhalation.

Safety Phrases: S2 Keep out of reach of children.
S13 Keep away from food, drink and animal feeding stuffs.
S23 Do not breath vapour or spray.

HEALTH HAZARD INFORMATION (Cont)**ACUTE:**

Swallowed: The product is harmful if swallowed; the Acute Oral LD₅₀ (rat) = 632 mg/kg.

Eye Contact: Practically non-irritating.

Skin: This product is practically non-toxic. The Acute dermal LD₅₀ in the rabbit is >2000 mg/kg. It is non-sensitising and non-irritating.

Inhaled: The product is harmful by inhalation. Acute Inhalation LC₅₀ > 11.58 mg/L/hr.

CHRONIC: No data available on this formulation. In studies with laboratory animals, bifenthrin, the active ingredient in Biflex Aqua, did not cause reproductive toxicity or teratogenicity. 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. Repeated over-exposure to propylene glycol may cause central nervous system effects, destruction of red blood cells and kidney damage.

FIRST AID

Swallowed: If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126. Do not induce vomiting or give anything by mouth to an unconscious person. Get to a doctor or hospital quickly.

Eyes: Flush with water for at least 15 minutes. If irritation occurs and persists, obtain medical attention.

Skin: If on skin or clothing, remove any contaminated clothing at once, and wash skin thoroughly with soap and water. See a doctor if irritation persists.

Inhaled: Remove to fresh air. If breathing discomfort occurs, contact a medical doctor.

ADVICE TO DOCTOR:

Bifenthrin the active ingredient in this product is a pyrethroid insecticide. The product has moderate oral toxicity and produces minimal irritation. After removal from exposure treatment is symptomatic and supportive. Digestible fats, oils, alcohol and milk products increase absorption and should be avoided.

PRECAUTIONS FOR USE

Exposure Standards: No exposure limit has been assigned to this material by NOHSC Australia.

Engineering Controls: Thoroughly ventilate all transport vehicles prior to unloading. General air replacement or dilution ventilation is sufficient for material handling and storage, but local exhaust ventilation should be used when filling or emptying this product.

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PRECAUTIONS FOR USE (Cont)

Personal Protection:

Work Clothing: For normal handling wear long sleeve uniform or overalls and head covering. For larger exposures, as in the case of spills, wear full body cover barrier suit, such as rubber rain suit.

Eye Protection: Where potential for splash, spray or mist exists, wear chemical protective goggles or a full face shield. Emergency eye wash facilities would be located nearby. Avoid contact with the eyes.

Respiratory Protection: For splash, vapour or mist exposure wear a half face air purifying respirator which is approved for pesticides(Australian Standards). Respirator selection is based on an airborne concentration.

Gloves: Wear chemical protective gloves made of rubber or neoprene or PVC gauntlet-style gloves when handling this product. Inspect regularly for leaks.

Personal Hygiene: Wash skin before eating, drinking or smoking. Shower at the end of the workday.

Flammability: The product has low flammability (Flashpoint >100°C).

SAFE HANDLING INFORMATION

Road & Rail Transport: Biflex Aqua Water Based Termiticide & Insecticide is not classified as a Dangerous Goods under the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Marine and Air Transport: Biflex Aqua Water Based Termiticide & Insecticide is a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air transport Association (IATA). If transporting by sea or air the following Dangerous Goods Classification applies:-

UN 3082, Class 9 (Miscellaneous Dangerous Goods), Packing Group III, Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains 8% Bifenthrin).

Store in a cool, dry, well ventilated location. Avoid excess heat. No smoking eating or drinking should be allowed where material is used or stored. Keep out of the reach of children and animals. Store in original containers only. Do not locate near or contaminate food or feed by storage or disposal. Wash all exposed skin surfaces prior to smoking drinking or eating. All workers should shower at the end of each work day after handling this product. Wash all clothing after each use.

SAFE HANDLING INFORMATION (Cont)

Spills and Disposal: In the case of spillage contain and absorb spilled material with absorbent material such as sand clay or cat litter and dispose of waste as indicated below or according to the Australian Standard 2507 - Storage and Handling of Pesticides. Wear prescribed protective clothing and equipment. Keep out animals and unprotected persons. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. To decontaminate spill area, tools and equipment, wash with a suitable solution (ie organic solvent, detergent, bleach or caustic) and add the solution to the drums of wastes already collected. Label for contents. Dispose of drummed wastes, including decontamination solution, in accordance with the requirements of Local or State Waste Management Authorities.

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

Drum Disposal: Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Do not re-use empty containers.

Fire/Explosion Hazard:

Extinguishing Media - Soft stream water fog, Foam, CO₂ or dry chemical. Contain all runoff.

Degree of Hazard - Slightly combustible. Avoid excess heat and fire. Thermal decomposition and burning may produce toxic by-products.

Special Fire Fighting Procedures - Isolate fire area. Evacuate downwind residents. Wear full protective clothing and self-contained breathing apparatus. Do not breathe or contact smoke, gases or vapours generated. Try to keep containers cool with soft stream water fog.

Hazardous Decomposition Products - Carbon monoxide, carbon dioxide, hydrogen chloride, chlorine, fluorine and hydrogen fluoride.

OTHER INFORMATION

Environmental Information: No data is available on Biflex Aqua. The active ingredient, bifenthrin, is degraded at a moderate rate in soils ($t_{1/2}$ = 50 to 205 days), and more rapidly on the surface of bare soils ($t_{1/2}$ = 7 to 62 days). Bifenthrin is tightly bound in most soils and has an extremely low water solubility. Bifenthrin is toxic to aquatic organisms. Do not contaminate sewers, drains, dams, creeks or any other waterways with product or the used container.

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