



## COLIN CAMPBELL (CHEMICALS) PTY. LTD.

### MATERIAL SAFETY DATA SHEET

Date of Issue: 1 July 2008

#### 1) IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:** CAMPBELL BIFF 100SC INSECTICIDE  
**Other Names:** None  
**Chemical Group:** Synthetic pyrethroid  
**Recommended Use:** Insecticide for use on recreational turf and ornamental plants.  
**Supplier Details:** Colin Campbell (Chemicals) Pty Ltd ABN 29 000 045 590  
5 Blackfriar Place  
Wetherill Park NSW 2164  
**Telephone:** (02) 9725 2544  
**Fax:** (02) 9604 7768  
**Email:** [cccsyd@campbellchemicals.com.au](mailto:cccsyd@campbellchemicals.com.au)  
**Website:** [www.campbellchemicals.com.au](http://www.campbellchemicals.com.au)  
**Contact:** Product Development Manager – (02) 9725 2544  
**Emergency Telephone Number:** (02) 9725 2544 – 8am to 6pm Monday to Friday.

#### 2) HAZARDS IDENTIFICATION

##### HAZARDOUS SUBSTANCE - NON DANGEROUS GOOD

**Hazardous classification:** Hazardous according to the criteria of the National Occupational Health & Safety Commission (NOHSC)

**Risk phrases:** R20/22 - Harmful by inhalation and if swallowed.

**Safety phrases:** S2 Keep out of reach of children  
S13 Keep away from food, drink and animal feeding stuffs.  
S23 Do not breathe vapour or spray.  
S36/37 Wear suitable protective clothing and gloves.  
S39 Wear eye/face protection.

**ADG Classification** Not a Dangerous good for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

**SUSDP classification:** 6 (Standard for the Uniform Scheduling of Drugs & Poisons)

#### 3) COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration
Bifenthrin	82657-04-3	10%
Other ingredients including wetting agents and water	Non hazardous	40-60%

#### 4) FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poison Information Centre (Ph: 13 11 26) and follow the advice given. Show this Material Safety Data Sheet to the doctor.

**Inhalation:** If inhaled remove to fresh air and keep at rest. If breathing discomfort occurs, obtain medical attention.

**Skin Contact:** Carefully remove contaminated clothing. Wash affected areas with soap and water. If irritation occurs and persists see a doctor.



## COLIN CAMPBELL (CHEMICALS) PTY. LTD.

### MATERIAL SAFETY DATA SHEET

Date of Issue: 1 July 2008

#### 4) FIRST AID MEASURES continued

- Eye contact:** Check and remove any contact lenses. Rinse eyes immediately with clean water for at least 15 minutes and seek medical aid.
- Ingestion:** If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If any discomfort persists seek medical advice.
- First Aid facilities** Ensure eye wash and safety shower are available.
- Medical Attention:** Bifenthrin, the active constituent in this product, is a pyrethroid insecticide. Treatment is otherwise symptomatic and supportive.

#### 5) FIRE FIGHTING MEASURES

- Extinguishing media** Product is not flammable. Use foam, dry chemical, carbon dioxide (CO<sub>2</sub>). Soft stream water fog if no alternative.
- Hazard from combustion products** In a fire, formation of hydrogen chloride, carbon monoxide, chlorine, fluorine and hydrogen fluoride, etc.
- Precautions for fighting fires** Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away. If it can be done safely remove intact containers from the fire. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of extinguishing agent and spillage safely later. Do not release contaminated water into the environment.
- Hazchem Code** Not applicable.

#### 6) ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled material or contaminated surfaces. Do not smoke, eat or drink during the clean up process. Wear personal protective clothing and equipment as detailed in Section 8 PERSONAL PROTECTION. Keep people and animals away. Contain spill and absorb with earth, sand, clay or other absorbent material. Prevent spilled material from entering drains or watercourses. Collect and store in properly labelled drums for safe disposal. Clean floor with a damp cloth and place it in the drum. Seal drums and label ready for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses etc is unavoidable warn the local water authority.

#### 7) HANDLING AND STORAGE

- Handling** Keep out of reach of children. Will irritate eyes and skin. Avoid contact with eyes and skin. Do not inhale spray mist. After use and before eating, drinking or smoking wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves and contaminated clothing.
- Storage** Store in the closed original container in a cool well ventilated area. Do not store for prolonged periods in direct sunlight. Store in a locked room away from children, animals, food, animal feed, seed and fertilisers. Protect from frost.
- Flammability** Not flammable.



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Date of Issue: 1 July 2008

#### 8) EXPOSURE CONTROL/PERSONAL PROTECTION

<b>Exposure Standards</b>	<p>No exposure standards for bifenthrin have been assigned. Atmospheric contamination of vapour and particulates of propane-2,2-diol can occur (propane-1,2-diol is present in Biff at &lt;5%). TWA (propane-1,2-diol) is 474mg/m<sup>3</sup>.</p> <p>It is highly unlikely that atmospheric concentrations of propane-1,2-diol will reach the above concentrations when used as directed.</p> <p>Exposure standard – Time Weighted Average (TWA) means the average airborne concentration of a particular substance when calculated over a normal eight hour working day, for a five-day working week.</p>
<b>Biological Limit Values</b>	None allocated
<b>Engineering Controls</b>	Control process conditions to avoid contact. Use in a well ventilated area only.
<b>Personal Protective Equipment</b>	Eyes: Safety goggles or face shield Clothing: Cotton overalls buttoned to the neck and wrists, and a washable hat. Gloves: Elbow length chemical resistant PVC or nitrile gloves Respiratory: If inhalation risk exists, wear a properly fitted half-face or full-face air-purifying respirator which is approved for pesticides (Australian Standards).

#### 9) PHYSICAL AND CHEMICALS PROPERTIES

<b>Appearance:</b>	White opaque liquid
<b>Odour:</b>	Very mild soap-like odour.
<b>Vapour pressure:</b>	Not available
<b>Vapour density:</b>	Not available
<b>Boiling point:</b>	>100°C
<b>Freezing/Melting point:</b>	Not available.
<b>pH:</b>	Not available.
<b>Solubility:</b>	Disperses in water
<b>Specific gravity:</b>	1.02g/mL
<b>Flash point:</b>	Not flammable
<b>Flammability (explosive) limit:</b>	Not flammable
<b>Auto ignition temperature:</b>	Not flammable

#### 10) STABILITY AND REACTIVITY

<b>Chemical stability:</b>	Stable under normal conditions of use.
<b>Conditions to avoid:</b>	No particular conditions to avoid.
<b>Incompatible materials :</b>	No particular conditions to avoid.



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**MATERIAL SAFETY DATA SHEET**

Date of Issue: 1 July 2008

**10) STABILITY AND REACTIVITY continued**

**Hazardous decomposition products:** In a fire, formation of hydrogen chloride, carbon monoxide, chlorine and fluorine can be expected.

**Hazardous reactions:** None

**11) TOXICOLOGICAL INFORMATION**

**Inhalation:** Unlikely to be harmful when handled and used as directed on the label.

**Skin contact:** Slight irritant. Allergic reactions in sensitive persons are possible.

**Eye contact:** Not irritating.

**Ingestion:** Product is harmful if swallowed.

**ANIMAL TOXICITY DATA – PRODUCT**

**Acute:**

**Oral toxicity:** LD<sub>50</sub> rat 505mg/kg

**Dermal toxicity:** LD<sub>50</sub> rat >2000mg/kg

**Inhalation toxicity:** LC<sub>50</sub> rat (4 hour): 8.7mg/L

**Skin irritation:** Irritant

**Sensitisation:** Skin sensitiser in sensitive individuals

**Chronic:**

No data available on this formulation. In studies with laboratory animals, bifenthrin technical 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.

**12) ECOLOGICAL INFORMATION**

Highly toxic to aquatic organisms and may cause adverse effects in the aquatic environment. DO NOT contaminate streams, rivers or waterway with Biff or the used containers.

**Ecotoxicity:**

**Bifenthrin:**

Fish toxicity: LC<sub>50</sub> (96 h) in trout (*Onchorhynchus mykiss*) 0.15 µg/L

Daphnia toxicity: EC<sub>50</sub> (48 h) water flea (*Daphnia magna*) 1.6 µg/L

Algal Toxicity: EC<sub>50</sub> (72 h) *Scenedesmus subspicatus* 50mg/L

**Ecotoxicity (continued):**

**Bifenthrin:**

Bird toxicity:

Acute oral LD<sub>50</sub> 569 mg/kg

**Environmental fate, persistence and degradability, mobility**

Bifenthrin degrades at a moderate rate in agricultural soils (t<sub>½</sub> = 50-205 days), and more rapidly on the surface of bare soils (t<sub>½</sub> = 7-62 days). Bifenthrin is tightly bound in most soils and has extremely low water solubility.



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#### 12) DISPOSAL CONSIDERATIONS

Triple or preferable pressure rinse containers before disposal. Add rinsings to the mixing tank. Do not dispose of undiluted chemical 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 500mm 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.

#### 13) TRANSPORT INFORMATION

This product is classified as a MARINE POLLUTANT only and so the Dangerous Goods classification which follows is for MARINE transport only.

**UN Number:** 3082  
**Proper Shipping name:** Environmentally hazardous substance, liquid, N.O.S. (bifenthrin)  
**Class and subsidiary risk:** 9  
**Packing Group:** III  
**Marine Pollutant :** IMDG Class : Marine Pollutant

#### 14) OTHER INFORMATION

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 the 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**