

SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name **DAVID GRAYS MOSQUITO SHIELD READY TO SPRAY**
Synonym(s) **MANUFACTURER CODES • MOSQUITO SHIELD**

1.2 Uses and uses advised against

Use(s) Insecticide, surface spray which kills and repels mosquitos.

1.3 Details of the supplier of the product

Supplier name **DAVID GRAY & CO PTY LIMITED**
Address 2 Rawlinson St, O'Connor, WA, 6961, AUSTRALIA
Telephone (08) 9337 4933
Email general@davidgray.com.au
Website <http://www.davidgray.com.au>

1.4 Emergency telephone number(s)

Emergency (08) 9337 4933 (B/H)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA

2.2 Label elements

Signal word **NOT PRESCRIBED**

Pictogram(s)



ENVIRONMENTAL HAZARDS: Short term/Acute Category 3

Hazard statement(s)

H402: **Harmful to aquatic life.**

Prevention statement(s)

P262: **Do not get in eyes, on skin, or on clothing.**

P264: **Wash hands thoroughly after handling.**

Response statement(s)

P363: **Wash contaminated clothing before reuse.**

P301+P330+P331: **IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.**

P303+P361+P353: **IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.**

P305+P351+P338: **IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**

P337+P313: **If eye irritation persists: Get medical advice.**

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Storage statement(s)

P402+P404: Store in a closed container, in a dry place.

Disposal statement(s) NOT PRESCRIBED

2.3 Other hazards

None known

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

Ingredient	CAS Number	Content (g/L)
BIFENTHRIN	82657-04-3	0.5g/L
NON HAZARDOUS INGREDIENTS	Not Available	Balance

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye	Hold eyelids open and rinse the eye continuously with a gentle stream of clean running water for at least fifteen minutes. Seek medical attention.
Inhalation	First aid is unlikely to be required as a result of exposure during normal use, but spray/mists may cause respiratory tract irritation. If symptoms occur, remove to fresh air. Keep warm and at rest. Seek medical attention if symptoms persist.
Skin	Remove contaminated clothing and wash thoroughly with soap and water. Use water alone, if soap is unavailable. Apply a moisturising hand cream, if available. Seek medical attention if any soreness or inflammation of the skin persists or develops later. Launder affected clothing before re-use.
Ingestion	Rinse mouth out with water ensuring that mouth wash is not swallowed. Give about 250mL (2 glasses) of water to drink. DO NOT attempt to induce vomiting. Seek medical attention as a precautionary measure.
First aid facilities	Eye wash facilities should be available.

4.2 Most important symptoms and effects, both acute and delayed

After eye contact: May cause mild transient irritation After skin contact: Repeated or prolonged excessive exposure may cause irritation or dermatitis. After ingestion: May be fatal if swallowed and enters airways. Nausea and possible vomiting may occur. After inhalation: Unlikely to occur due to the physical properties of the product.

4.3 Immediate medical attention and special treatment needed

After eye contact: Rinse eyes with plenty of water until no evidence of product remains. After skin contact: Rinse affected area with mild soap and water until no evidence of product remains. After ingestion: May be fatal if swallowed and enters airways. Dilution by rinsing the mouth and giving a glass of water to drink is generally recommended. After inhalation: Remove from exposure area to fresh air.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Non-combustible liquid. Extinguish fire using whatever is suitable for the primary cause of the fire. Carbon dioxide, dry chemical, foam or water fog are all suitable.

5.2 Special hazards arising from the substance or mixture

This product is likely to decompose only after heating to dryness, followed by further strong heating. Combustion forms oxides of carbon and nitrogen.

5.3 Advice for firefighters

Fire fighters should wear self-contained breathing apparatus. Keep containers as cool as possible by spraying with water from a protected position.

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5.4 Hazchem code: N/A

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear skin, eye and respiratory protection as recommended in Section 8. Ventilate spill area if possible. Do not touch spilled material. Spills present a slipping hazard. Keep unnecessary personnel away. Make sure area is slip-free before re-opening to traffic.

6.2 Environmental precautions

Do not discharge into surface water/ground water.

6.3 Methods of cleaning up

SMALL SPILLS: Sweep or scoop up and place into containers for later disposal. Wash site of spillage thoroughly with water. LARGE SPILLS: Ventilate closed spaces before entering. Sweep or scoop up. Dispose in suitable waste container. Keep unnecessary people away from spill.

6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid eye contact and prolonged or repeated skin contact.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of reach of children. Protect the product from light. Keep closed, in the original container, in a cool, well-ventilated area out of direct sunlight.

7.3 Specific end use(s)

No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

Exposure standards represent the airborne concentration of a particular substance in the worker's breathing zone, exposure to which, according to current knowledge, should not cause adverse health effects nor cause undue discomfort to nearly all workers. The exposure standard can be of three forms; time-weighted average (TWA), peak, or short-term exposure limit (STEL).

BIOLOGICAL LIMIT VALUES: None allocated

ENGINEERING CONTROLS: Ventilation requirements depend on the quantity of product in use and the method of application. If using large quantities in an indoor area, then mechanical ventilation may be required. Otherwise, natural ventilation is adequate for normal use of this product.

8.2 Exposure controls

PERSONAL PROTECTION: Requirements depend on working conditions, method of application and quantity of product in use. No special equipment is required for handling small quantities, but safety glasses or goggles should be worn if necessary to prevent eye contact. Nitrile, neoprene, PVC or natural rubber gloves should be worn if necessary to prevent skin contact. Respiratory protection is unlikely to be required for normal use of this product.

Avoid inhaling spray mists.

Respiratory Where an inhalation risk exists, wear a Class P1 (Particulate) respirator.

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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Opaque liquid that separates on standing
Odour	None
Flammability	NON FLAMMABLE
Flash point	None
Boiling point	Approximately 100°C
Melting point	Approximately 0°C
Evaporation rate	Negligible.
pH	5.5 - 7.0 1% soln.
Vapour density	As for water.
Specific gravity	1.00 at 25°C
Solubility (water)	Miscible
Vapour pressure	17.7 mmHg at 20°C (same as water)
Upper explosion limit	None
Lower explosion limit	None
Partition coefficient	NOT AVAILABLE

9.1 Information on basic physical and chemical properties

Autoignition temperature	NOT AVAILABLE
Decomposition temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE

10. STABILITY AND REACTIVITY

10.1 Reactivity

None known.

10.2 Chemical stability

Stable under normal conditions of use and storage.

10.3 Possibility of hazardous reactions

Hazardous polymerization has not been reported to occur under normal temperatures and pressures.

10.4 Conditions to avoid

Keep out of reach of children. Avoid exposure to light. Keep in the original container in a, cool, well-ventilated area.

10.5 Incompatible materials

Oxidising agents.

10.6 Hazardous decomposition products

May evolve toxic fumes if heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Information available for the ingredient(s):

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Ingredient	Oral Toxicity (LD50)	Dermal Toxicity (LD50)	Inhalation Toxicity (LC50)
BIFENTHRIN	oral toxicity LD50: 54 mg/kg female rats, 70 mg/kg in male rats	dermal LD50: 2,000 mg/kg rabbits	Inhalation LC50 (, 4 h) = 0.68 mg/l

ACUTE - SWALLOWED: Irritating. Large does may cause nausea and vomiting. However, concentration of bifenthrin, the active ingredient which gives rise to these symptoms, is below the concentration at which effects would be expected.

Skin No symptoms are expected as a result of brief contact, not expected to be irritating.

Eye Transient irritation may occur.

Sensitisation No symptoms are expected as a result of brief contact, not expected to be irritating.

Acute-Inhaled Spray mists may be irritating

Chronic Effects Harmful to mammals if swallowed. Large doses of Bifenthrin may cause incoordination, tremor, salivation, vomiting, diarrhoea, and irritability to sound and touch. Acute oral toxicity LD50: 54 mg/kg female rats, 70 mg/kg in male rats. Acute dermal LD50: 2,000 mg/kg rabbits. Not listed as a carcinogen by Safe Work Australia, the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), the National Institute for Occupational Safety and Health (NIOSH), or the Occupational Health and Safety Administration (OSHA).

Aspiration Spray mists may be irritating.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Bifenthrin is very highly toxic to fish, crustaceans and aquatic animals. Bifenthrin is toxic to bees. Toxicity to fish LC50 - *Oncorhynchus mykiss* (rainbow trout) - 0.15 µg/l - 96.0 h.

12.2 Persistence and degradability

Pyrethroids such as bifenthrin absorb light at wavelengths >290 nanometres and may be susceptible to direct photolysis by sunlight. The amount of time it takes to degrade to half of its original concentration is 7 days to 8 months depending on the soil type and the amount of air in the soil.

12.3 Bioaccumulative potential

Potential for bio concentration in aquatic organisms is high.

12.4 Mobility in soil

Bifenthrin does not move in soils with large amounts of organic matter, clay and silt. It also has a low mobility in sandy soils that are low in organic matter. It is relatively insoluble in water, so there are no concerns about groundwater contamination through leaching.

12.5 Other adverse effects

No information provided.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal Recycling is the preferred option but if that is not practicable, dispose to approved landfill.

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Disposal of uncleaned packages Do not reuse this container. Never place unused product down any indoor or outdoor drain. Dispose of container and unused contents in accordance with federal, state and local requirements

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

The information in this section is for reference only and should not take the place of a shipping paper (bill of lading) specific to an order. Please note that the proper shipping classification may vary by packaging, properties, and mode of transportation. Classified as Non-Dangerous Goods for transport as per the Australian Dangerous Goods Code

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IM)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	N/A	N/A	N/A
14.2 Proper Shipping Name	N/A	N/A	N/A
14.3 Transport hazard class	N/A	N/A	N/A
14.4 Packing	N/A	N/A	N/A

14.5 Environmental hazards

No information provided.

14.6 Special precautions for user

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison schedule A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

APVMA Number(s) 94248 / 141899

Classifications Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.

The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)].

Inventory listing(s) **AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**
All components are listed on AICS or are exempt.

16. OTHER INFORMATION

Additional information

RESPIRATORS: In general, the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

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SYNERGISM - ANTAGONISM: Ingredients in this product may act together to aggravate or reduce adverse effects. Accordingly, the time weighted average concentration (TWA) provided for single ingredients should be considered as a guide only and all due care exercised when handling.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

This Safety Data Sheet has been developed according to the Worksafe Australia Codes of Practice.

Hazard and precautionary statements according to classification under GHS (Globally Harmonised System) of Classification and Labelling.

The information contained herein is given in good faith however and is considered to be accurate at the specified issue date. No warranty expressed or implied is made to the accuracy or completeness of the data and information contained herein. No person, other than an authorised representative of David Gray & Company Pty Ltd, has the authority to make any alterations to this SDS.

Contact David Gray & Co Pty Limited for further product information on (08) 9337 4933 during normal business hours.

[End of SDS]