

AMBER



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MATERIAL SAFETY DATA SHEET

PRODUCT NAME **DAVID GRAYS MOSQUITO & SPIDER SPRAY**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name DAVID GRAY & CO PTY LIMITED
Address 2 Rawlinson Street, O'Connor, WA, AUSTRALIA, 6961
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Synonym(s) 00745 (12X200ML) - MANUFACTURER'S CODE • MOSQUITO & SPIDER SPRAY
Use(s) INSECTICIDE

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA

RISK PHRASES

R20/21 Harmful by inhalation and in contact with skin.
R25 Toxic if swallowed.
R38 Irritating to skin.

SAFETY PHRASES

S16 Keep away from sources of ignition - No smoking.
S25 Avoid contact with eyes.
S29 Do not empty into drains.
S36/37 Wear suitable protective clothing and gloves.
S44 If you feel unwell, contact a doctor or Poisons Information Centre immediately (show label where possible).

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

UN No.	None Allocated	Hazchem Code	None Allocated	Pkg Group	None Allocated
DG Class	None Allocated	Subsidiary Risk(s)	None Allocated	EPG	None Allocated

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Formula	Conc.	CAS No.
SOLVENT NAPHTHA (PETROLEUM), HEAVY AROMATIC	Not Available	>60%	64742-94-5
FENTHION	Not Available	11.7%	55-38-9
ADDITIVES	Not Available	Not Available	Not Available

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4. FIRST AID MEASURES

Eye	Hold eyelids apart and flush continuously with water. Continue until advised to stop by the Poisons Information Centre, a doctor, or for at least 15 minutes. Keep patient calm.
Inhalation	If poisoning occurs, contact a doctor or Poisons Information Centre (PIC). If over exposure occurs, leave area of exposure immediately. Seek urgent medical attention.
Skin	Remove contaminated clothing and gently flush affected areas with water. Seek medical attention if irritation develops. Launder clothing before reuse.
Ingestion	If poisoning occurs, contact a Doctor or Poisons Information Centre on 13 11 26 (Australia Wide). If poisoned by skin absorption or through lungs, remove any contaminated clothing, wash skin thoroughly. If swallowed, do not induce vomiting. Give a glass of water. Get to a doctor or hospital quickly.
Advice to Doctor	Atropine is the antidote. If vomiting occurs, the solvent present may cause pulmonary pneumonitis.

5. FIRE FIGHTING MEASURES

Flammability	Combustible liquid. May evolve toxic gases (phosphorus/ carbon/ nitrogen/ sulphur oxides, hydrocarbons) when heated to decomposition.
Fire and Explosion	Combustible liquid. Evacuate area and contact emergency services. Toxic gases (hydrocarbons, and carbon/ sulphur/ nitrogen/ phosphorus oxides) may be evolved when heated. Remain upwind and notify those downwind of hazard. Wear full protective equipment (see spill) including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.
Extinguishing	Dry agent, carbon dioxide or foam. Prevent contamination of drains or waterways. Absorb runoff with sand or similar.
Hazchem Code	None Allocated

6. ACCIDENTAL RELEASE MEASURES

Spillage	If spilt (small spill), wear the recommended PPE. Absorb the spill as above then sweep up and contain in suitable well labelled packaging and dispose of the product in accordance with label directions. Wash the contaminated surfaces with a mild bleach (sodium hypochlorite) solution.
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7. STORAGE AND HANDLING

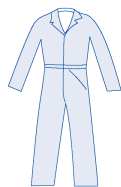
Storage	Store in cool, dry, well ventilated area, out of direct sunlight and out of reach of children, removed from oxidising agents, acids and alkalis, direct sunlight, heat and ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use.
Handling	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation	Do not inhale vapours. Use in well ventilated areas. In poorly ventilated areas, mechanical extraction ventilation is recommended. Flammable/explosive vapours may accumulate in poorly ventilated areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour levels below the recommended exposure standard.
Exposure Standards	FENTHION (55-38-9) ES-TWA: 0.2 mg/m ³ (skin) WES-TWA: 0.2 mg/m ³
PPE	Wear splash-proof goggles, full-length PVA or full-length viton (R) gloves and coveralls. Where an inhalation risk exists, wear a Full-face Type A-Class P1 (Organic gases/vapours and Particulate) respirator. When using large quantities or where heavy contamination is likely, wear PVC boots and a PVC apron.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	CLEAR PALE YELLOW LIQUID	Solubility (water)	EMULSIFIES
Odour	SOLVENT ODOUR	Specific Gravity	0.92
pH	NOT AVAILABLE	% Volatiles	NOT AVAILABLE
Vapour Pressure	0.074 kPa @ 20 C	Flammability	CLASS C1 COMBUSTIBLE
Vapour Density	NOT AVAILABLE	Flash Point	> 62 C
Melting Point	NOT AVAILABLE	Upper Explosion Limit	7.0 %
Boiling Point	NOT AVAILABLE	Lower Explosion Limit	0.6 %
Evaporation Rate	NOT AVAILABLE	Autoignition Temperature	NOT AVAILABLE

10. STABILITY AND REACTIVITY

Reactivity	Incompatible with oxidising agents (eg. hypochlorites, peroxides), acids (eg. sulphuric acid), strong alkalis (eg. hydroxides), heat and ignition sources.
Decomposition Products	May evolve toxic gases (phosphorus/ carbon/ nitrogen/ sulphur oxides, hydrocarbons) when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	Toxic. Avoid eye or skin contact & vapour inhalation. Potent cholinesterase inhibitor, adverse health effects may be delayed several days. Mutagenic, teratogenic & tumorigenic effects reported. Chronic over exposure may result in anaemia, liver, kidney and nerve damage. Potential for adverse health effects will be reduced upon dilution.
Eye	Irritant. Exposure may result in irritation, lacrimation, pain, redness and blurring or dimness of vision.
Inhalation	Toxic. Over exposure may result in mucous membrane irritation of the nose and throat, headache, coughing, weakness, nausea, vomiting and mild chest pain. At high levels; dizziness, muscle twitching, lack of coordination, excessive salivation and sweating, and breathing difficulties. Cholinesterase inhibitor.
Skin	Irritant - toxic. Contact may result in itching, pain, redness and skin rash. Readily absorbed through intact skin with symptoms as for inhalation.
Ingestion	Moderately toxic. Ingestion may cause vomiting, abdominal pain, diarrhoea, fatigue, profuse sweating and/or salivation, breathing difficulties, muscle spasms, and convulsions and psychosis.
Toxicity Data	FENTHION (55-38-9) Health Surveillance: Required [NOHSC:1005(1994)] LC50 (Inhalation): 800 mg/m ³ /4H (rat) LD50 (Ingestion): 105 mg/kg (mammal) LD50 (Skin): 330 mg/ka (rat)

12. ECOLOGICAL INFORMATION

Environment	SOIL: Fenthion is expected to have very low mobility in soil and will biodegrade. WATER: Fenthion can degrade via photodegradation and biodegradation in the aquatic environment. May bioaccumulate. ATMOSPHERE: It will degrade rapidly in the vapour phase with an estimated half-life of about 5 hr.
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13. DISPOSAL CONSIDERATIONS

Waste Disposal	Return to manufacturer where appropriate. For small amounts absorb with sand, vermiculite or similar and dispose to an approved landfill. For larger amounts absorb with excess lime or sodium hydroxide (ensure reaction is not too vigorous), and sand or similar and dispose of to an approved landfill.
Legislation	Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

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Shipping Name None Allocated

UN No. None Allocated

DG Class None Allocated

Subsidiary Risk(s) None Allocated

Pkg Group None Allocated

Hazchem Code None Allocated

EPG None Allocated

15. REGULATORY INFORMATION

Poison Schedule AICS Classified as a Schedule 6 (S6) Poison using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).
All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Additional Information ORGANOPHOSPHATES-CARBAMATE PESTICIDES-LARVICIDES: These agents act by combining with and inactivating the enzyme acetylcholinesterase (an enzyme involved in nerve muscle coordination). The inhibition of the cholinesterase appears to be reversible following cessation of exposure at sub lethal concentrations (acute exposure). The principal manifestations of poisoning with cholinesterase inhibitor pesticides are visual disturbances, respiratory difficulty and gastrointestinal hyperactivity.

WORKPLACE CONTROLS AND PRACTICES Unless a less toxic chemical can be substituted for a hazardous substance, **ENGINEERING CONTROLS** are the most effective way of reducing exposure. The best protection is to enclose operations and/or provide local exhaust ventilation at the site of chemical release. Isolating operations can also reduce exposure. Using respirators or protective equipment is less effective than the controls mentioned above, but is sometimes necessary.

FENTHION - DEGRADATION: 5 mg/L fenthion exposed to artificial sunlight and kept in 5C water has a half life of 55 minutes; at 25 C half life of 15 minutes. Degradation of fenthion in river water is believed to be due to biological sources (eg. in a jar of river water 90% degradation in 2 weeks). Half life in acid: 36 hours (@ 80 C); half life in alkali: 95 minutes (@ 80 C). **ACUTE WATERFOWL TOXICITY:** Acute Oral LD50: 5.94 mg/kg (16 wk female mallard ducks).

ENVIRONMENTAL TOXICITY. This product is known to adversely affect aquatic or animal life in small concentrations. Product will not accumulate or biomagnify in the environment.

ABBREVIATIONS:

mg/m³ - Milligrams per cubic metre

ppm - Parts Per Million

TWA/ES - Time Weighted Average or Exposure Standard.

CNS - Central Nervous System

NOS - Not Otherwise Specified

pH - relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline.

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

M - moles per litre, a unit of concentration.

IARC - International Agency for Research on Cancer.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Chem Alert 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 Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

COLOUR RATING SYSTEM: RMT has assigned all Chem Alert reports a colour rating of Green, Amber or Red for the sole purpose of providing users with a quick and easy means of determining the hazardous nature of a product. Safe handling recommendations are provided in all Chem Alert reports so as to clearly identify how users can control the hazards and thereby reduce the risk (or likelihood) of adverse effects. As a general guideline, a Green colour rating indicates a low hazard, an Amber colour rating indicates a moderate hazard and a Red colour rating indicates a high hazard.

While all due care has been taken by RMT in the preparation of the Colour Rating System, it is intended as a

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guide only and RMT does not provide any warranty in relation to the accuracy of the Colour Rating System. As far as is lawfully possible, RMT accepts no liability or responsibility whatsoever for the actions or omissions of any person in reliance on the Colour Rating System.

Report Status

This document has been compiled by RMT on behalf of the manufacturer of the product and serves as the manufacturer's Material Safety Data Sheet ('MSDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this MSDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this MSDS.

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End of Report