

RED



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MATERIAL SAFETY DATA SHEET

Product Name **DAVID GRAYS DDVP 500 INSECTICIDE**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name DAVID GRAY & CO PTY LIMITED
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Web Site <http://www.davidgray.com.au/>
Synonym(s) 24292 (5L) - MANUFACTURER'S CODE • DDVP 50
Use(s) INSECTICIDE
MSDS Date 21 Jun 2010

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO ASCC CRITERIA

RISK PHRASES

R24/25 Toxic in contact with skin and if swallowed.
R38 Irritating to skin.

SAFETY PHRASES

S23 Do not breathe gas/fumes/vapour/spray (where applicable).
S36/37 Wear suitable protective clothing and gloves.
S46 If swallowed, contact a doctor or Poisons Information Centre immediately and show container or label.

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

UN No. 3018 **DG Class** 6.1 **Subsidiary Risk(s)** None Allocated
Packing Group III **Hazchem Code** 2XE

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
DICHLORVOS	C4-H7-Cl2-O4-P	62-73-7	50%
SOLVENT NAPHTHA (PETROLEUM), HEAVY AROMATIC	Not Available	64742-94-5	30-50%

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4. FIRST AID MEASURES

- Eye** If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
- Inhalation** If inhaled, remove from contaminated area. To protect rescuer, use an Air-line respirator or Self Contained Breathing Apparatus (SCBA). Apply artificial respiration if not breathing. Give oxygen if available.
- Skin** If skin contact occurs, remove any contaminated clothing and flush skin with running water. If poisoned, give 1 atropine tablet every 5 minutes until dryness of the mouth occurs. Remove from contaminated area. Seek immediate medical advice.
- Ingestion** For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, give one atropine tablet every 5 minutes until dryness of the mouth occurs. Seek medical attention immediately.
- Advice to Doctor** Treat symptomatically.

5. FIRE FIGHTING MEASURES

- Flammability** Combustible. May evolve toxic gases (phosphorus/ carbon/ nitrogen/ sulphur oxides, hydrocarbons) when heated to decomposition.
- Fire and Explosion** Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment 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.
- Hazchem Code** 2XE

6. ACCIDENTAL RELEASE MEASURES

- Spillage** Contact emergency services where appropriate. Use personal protective equipment. Clear area of all unprotected personnel. Ventilate area where possible. Contain spillage, then cover / absorb spill with non-combustible absorbant material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. If product spilt indoors, wash contaminated surfaces with a mild bleach solution (sodium hypochlorite).

7. STORAGE AND HANDLING

- Storage** Store in a cool, dry, well ventilated area, removed from oxidising agents, acids, metals, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Large storage areas should be bunded and have appropriate fire protection and ventilation systems.
- 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

Exposure Stds

Ingredient	Reference	TWA		STEL	
Dichlorvos (DDVP)	ASCC (AUS)	0.1 ppm	0.9 mg/m ³	--	--

Biological Limits No biological limit allocated.

Engineering Controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

PPE Wear splash-proof goggles, a washable hat, PVC boots, rubber or PVC gloves, coveralls, a faceshield and a Type A (Organic vapour) respirator. When using large quantities or where heavy contamination is likely, wear: PVC or rubber boots and coveralls. If spraying, wear: a Type A-Class P1 (Organic gases/vapours and Particulate) respirator. If spraying, with prolonged use, or if in confined areas, wear: an Air-line respirator.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	LIGHT YELLOW LIQUID	Solubility (Water)	EMULSIFIES
Odour	SOLVENT ODOUR	Specific Gravity	1.07 - 1.10
pH	NOT AVAILABLE	% Volatiles	NOT AVAILABLE
Vapour Pressure	NOT AVAILABLE	Flammability	CLASS C1 COMBUSTIBLE
Vapour Density	NOT AVAILABLE	Flash Point	> 62°C
Boiling Point	178°C (Solvent)	Upper Explosion Limit	7.0 %
Melting Point	NOT AVAILABLE	Lower Explosion Limit	0.6 %
Evaporation Rate	NOT AVAILABLE		
Appearance	LIGHT YELLOW LIQUID	Odour	SOLVENT ODOUR

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended conditions of storage.
Conditions to Avoid	Avoid heat, sparks, open flames and other ignition sources.
Material to Avoid	Corrosive to iron and mild steel. Concentrate (containing hydrocarbons) may be incompatible with oxidising agents and acids. Hydrolysed in water.
Hazardous Decomposition Products	May evolve toxic gases (phosphorus/ carbon/ nitrogen/ sulphur oxides, hydrocarbons) when heated to decomposition.
Hazardous Reactions	Hazardous polymerization is not expected to occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	Highly toxic. This product has the potential to cause adverse health effects. Use safe work practices to avoid eye or skin contact and inhalation. Cholinesterase inhibitor resulting in the accumulation of acetylcholine, causing rapid twitching of voluntary muscles and finally paralysis. Dichlorvos is classified as possibly carcinogenic to humans (IARC Group 2B). Potential for adverse health effects may be reduced upon dilution.
Eye	Irritant. Contact may result in irritation, lacrimation, pain, redness and blurring or dimness of vision.
Inhalation	Highly toxic. Over exposure may result in headache, dizziness, weakness, nausea, vomiting, excessive salivation, abdominal pain, stomach cramps, facial followed by neck and general body muscle twitching, breathing difficulties and convulsions. Cholinesterase inhibitor.
Skin	Irritant - toxic. May be absorbed through skin with harmful effects. Skin absorption may cause nausea, vomiting, aching eyes, muscle twitching, excessive salivation and convulsions.
Ingestion	Highly toxic. Ingestion may result in nausea, vomiting, abdominal pain, diarrhoea, fatigue, and sweating and/or salivation.
Toxicity Data	DICHLORVOS (62-73-7) Health Surveillance: Required [NOHSC:1005(1994)] LC50 (Inhalation): 13 mg/m ³ /4 hours (mouse) LD50 (Ingestion): 17 mg/kg (rat) LD50 (Intraperitoneal): 15 mg/kg (rat) LD50 (Intravenous): 18 mg/kg (rat) LD50 (Skin): 750 ug/kg (rat) LD50 (Subcutaneous): 10.8 mg/kg (rat) SOLVENT NAPHTHA (PETROLEUM), HEAVY AROMATIC (64742-94-5) LC50 (Inhalation): > 590 mg/m ³ /4 hours (rat) LD50 (Skin): > 2 mL/kg (rabbit) LDLo (Ingestion): 5 mL/kg (rat)

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12. ECOLOGICAL INFORMATION

Environment Organophosphates are highly toxic to birds, mammals and fish. Bioaccumulation is unlikely as these chemicals would kill the organism before it would be taken into the tissues. Even when these chemicals are taken up by fish, they seldom persist for more than a week.

13. DISPOSAL CONSIDERATIONS

Waste Disposal For small amounts absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer for additional information if larger amounts are involved. Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION



CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

Shipping Name	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC			Subsidiary Risk(s)	None Allocated
UN No.	3018	DG Class	6.1	GTEPG	6A1
Packing Group	III	Hazchem Code	2XE		

IATA

Shipping Name	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC			Subsidiary Risk(s)	None Allocated
UN No.	3018	DG Class	6.1		
Packing Group	III				

IMDG

Shipping Name	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC			Subsidiary Risk(s)	None Allocated
UN No.	3018	DG Class	6.1		
Packing Group	III				

15. REGULATORY INFORMATION

Poison Schedule Classified as a Schedule 6 (S6) Poison using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

AICS All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

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.

EXPOSURE STANDARDS - TIME WEIGHTED AVERAGE (TWA) or WES (WORKPLACE EXPOSURE STANDARD) (NZ): Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

ABBREVIATIONS:

ADB - Air-Dry Basis.

BEI - Biological Exposure Indice(s)

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CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.
CNS - Central Nervous System.
EC No - European Community Number.
IARC - International Agency for Research on Cancer.
M - moles per litre, a unit of concentration.
mg/m³ - Milligrams per cubic metre.
NOS - Not Otherwise Specified.
NTP - National Toxicology Program.
OSHA - Occupational Safety and Health Administration.
pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm - Parts Per Million.
RTECS - Registry of Toxic Effects of Chemical Substances.
TWA/ES - Time Weighted Average or Exposure Standard.

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.

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.

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 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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SDS Date 21 Jun 2010**End of Report**