



DAVID GRAY & CO. PTY LIMITED  
2 Rawlinson Street O'CONNOR WA 6163  
PO BOX 2084 PALMYRA DC WA 6961  
Ph: (08) 9337 4933 Fax: (08) 9337 8316  
email: general@davidgray.com.au web: www.davidgray.com.au

## MATERIAL SAFETY DATA SHEET

Product Name **DAVID GRAYS DIAZINON 800 INSECTICIDE**

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Supplier Name** DAVID GRAY & CO PTY LIMITED  
**Address** 2 Rawlinson Street, O'Connor WA, 6163, AUSTRALIA  
**Telephone** (08) 9337 4933  
**Fax** (08) 9337 8316  
**Emergency** (08) 9337 4933 (B/H)

**Synonyms** 28292 (5 L) - MANUFACTURER'S CODE, 28307 (20L) - MANUFACTURER'S CODE, DIAZINON 800.

**Uses** INSECTICIDE.

### 2. HAZARDS IDENTIFICATION

**CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA**  
**CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

**Risk And Safety Phrases** Risk and Safety Phrases are standardised phrases allocated to Hazardous Substances. Risk phrases convey a general description of the physicochemical, environmental and health hazards of a substance. Safety phrases provide information on safe storage, handling, disposal, personal protection and first aid.

**RISK PHRASES**  
R22 Harmful if swallowed.

**SAFETY PHRASES**  
S25 Avoid contact with eyes.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Formula	Conc.	CAS No.
DIAZINON	C <sub>12</sub> H <sub>21</sub> N <sub>2</sub> O <sub>3</sub> P-S	80%	333-41-5
SOLVENT NAPHTHA (PETROLEUM), HEAVY AROMATIC		10 - 30%	64742-94-5
INERT FILLERS		Not Available	Not Available

### 4. FIRST AID MEASURES

**Eye** Flush gently with running water. Seek medical attention if irritation persists.

**Inhalation** If over exposure occurs leave exposure area immediately. If irritation persists, seek medical attention.

**Skin** Gently flush affected areas with water. Seek medical attention if irritation develops.

**Ingestion** For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor.

**Advice To Doctor** Treat symptomatically.

Colour  
Rating  
**AMBER**



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### 5. FIRE FIGHTING MEASURES

- Flammability** Combustible. May evolve toxic gases (carbon/ sulphur/ phosphorus oxides, organic sulphides, chlorides) when heated to decomposition. May also evolve nitrogen oxides when heated to decomposition.
- Fire and Explosion** Combustible. Evacuate area and contact emergency services. Toxic gases (carbon/ sulphur/ phosphorus oxides, organic sulphides) may be evolved may be evolved when heated. Remain upwind and notify those downwind of hazard. Wear full protective equipment (see spill above) 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** 2X

### 6. ACCIDENTAL RELEASE MEASURES

- Spillage** If spilt (bulk), absorb with sand or similar. Wear splash-proof goggles, PVC/rubber gloves, coveralls and boots. Where an inhalation risk exists, wear a Type A (Organic vapour) respirator. Collect and place in sealable containers for disposal. Caution, spill site may be slippery. Spilt residue may be neutralised by application of a mild bleach solution (sodium hypochlorite) or other alkaline material such as soda ash (sodium carbonate) or lime.

### 7. HANDLING AND STORAGE

- 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 (eg. if container is damaged).
- Storage** Store in cool, dry, well ventilated area, removed from fertilizers, moisture, seeds, acids, oxidising agents, alkalis, heat sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Ventilation** Ensure adequate natural ventilation. Maintain vapour levels below the recommended exposure standard.
- Exposure Standards** DIAZINON (333-41-5)  
ES-TWA : 0.1 mg/m<sup>3</sup> (skin)  
ES-STEL : 0.3 mg/m<sup>3</sup> (ACGIH)  
WES-TWA : 0.1 mg/m<sup>3</sup>
- PPE** Wear splash-proof goggles and PVC or rubber gloves. When using large quantities or where heavy contamination is likely, wear coveralls. Where an inhalation risk exists, wear a Type A (Organic vapour) Respirator.



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### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** CLEAR AMBER LIQUID  
**Odour:** SOLVENT ODOUR  
**pH:** NOT RELEVANT  
**Vapour Pressure:** 0.074 kPa @ 20 C  
**Vapour Density:** NOT AVAILABLE  
**Boiling Point:** 178 C (Approximately)  
**Melting Point:** NOT AVAILABLE  
**Evaporation Rate:** NOT AVAILABLE  
**Solubility (water):** EMULSIFIES  
**Specific Gravity:** 1.07 - 1.08  
**% Volatiles:** NOT AVAILABLE  
**Flammability:** CLASS C1 COMBUSTIBLE  
**Flash Point:** > 62 C  
**Upper Explosion Limit:** 7.0 %  
**Lower Explosion Limit:** 0.6 %  
**Autoignition Temperature:** NOT AVAILABLE

### 10. STABILITY AND REACTIVITY

**Reactivity** Incompatible with oxidising agents (eg. hypochlorites, peroxides), acids (eg. nitric acid), alkalis (eg. sodium hydroxide) and heat sources.

**Decomposition Products** May evolve toxic gases (carbon/ sulphur/ phosphorus oxides, organic sulphides, chlorides) when heated to decomposition. May also evolve nitrogen oxides when heated to decomposition.

### 11. TOXICOLOGICAL INFORMATION

**Health Hazard Summary** Toxic. This product has the potential to cause acute and chronic health effects. Use safe work practices to avoid eye or skin contact and vapour inhalation. Diazinon is a cholinesterase inhibitor. Symptoms of over exposure may include; blurred vision due to miosis (constriction of pupils), excessive salivation and sweating, weakness, incoordination, and breathing difficulties. Due to microencapsulation of the active ingredient (diazinon), adverse health effects are greatly reduced.

**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, coughing, weakness, nausea, vomiting, diarrhoea, dizziness, incoordination, excessive salivation - sweating and breathing difficulties. Cholinesterase inhibitor.

**Skin** Irritant. Contact may result in itching, pain, redness and skin rash. Toxic effects reported through skin absorption.

**Ingestion** Toxic. Ingestion may result in nausea, vomiting, abdominal pain, diarrhoea, fatigue, profuse sweating - salivation.

**Toxicity Data** DIAZINON (333-41-5)  
LC50 (Inhalation) : 1600 mg/m<sup>3</sup>/4H mouse  
LD50 (Ingestion) : 17 mg/kg (mouse)  
Health Surveillance : Required [NOHSC:1005(1994)]

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### 12. ECOLOGICAL INFORMATION

**Environment** Limited ecotoxicity data was available for this product at the time this report was prepared. Ensure appropriate measures are taken to prevent this product from entering the environment.

### 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

**Transport** Class 6.1 Toxic. Do not transport with chemicals of class; 1 (Explosives), 3 (Flammable liquids), 5.1 (Oxidising agents), 5.2 (Organic peroxides), 8 (Corrosives - where the Corrosive is an acid and the Toxic is a cyanide) and foodstuffs.

**UN Number** 3018  
**Shipping Name** ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC  
**DG Class** 6.1  
**Subsidiary Risk(s)** None Allocated  
**Packing Group** III  
**Hazchem Code** 2X

**IMDG**  
**UN Number** 3018  
**DG Class** 6.1  
**Subsidiary Risk(s)** None Allocated  
**Packing Group** III

**IATA**  
**UN Number** 3018  
**DG Class** 6.1  
**Subsidiary Risk(s)** None Allocated  
**Packing Group** III  
**Inhalation** None Allocated  
**Packing Group**

### 15. REGULATORY INFORMATION

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

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### 15. REGULATORY INFORMATION cont.

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

### 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.

**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.

**COLOUR RATING SYSTEM:** Chem Alert reports are assigned a colour rating of Green, Amber or Red for the 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.

#### 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.

#### ABBREVIATIONS:

mg/m<sup>3</sup> - 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.

**Report Reviewed** 18th May 2006

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### 16. OTHER INFORMATION cont.

Date Printed 18th May 2006

**Report Status** Chem Alert reports are compiled as an independent source of information by RMT's scientific department. The information is based on the latest chemical and toxicological research, and in compliance with relevant standards, guidance notes and legislation (where applicable). The Chem Alert report is not intended as a replacement to the manufacturer's original MSDS that is provided to Chem Alert subscribers for convenience. In many instances, Chem Alert reports are compiled on behalf of manufacturers, in which case they serve as the "Manufacturer's MSDS" and are clearly identified as such on the relevant reports.

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