

**GREEN**



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## MATERIAL SAFETY DATA SHEET

Product Name **DAVID GRAYS SCRAM PERSONAL INSECT REPELLENT TROPICAL STRENGTH**

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Supplier Name** DAVID GRAY & CO PTY LIMITED  
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**Synonym(s)** MANUFACTURER'S CODE: 2496 (12X125G), 2488 (12X250G) • PERSONAL INSECT REPELLENT • SCRAM PERSONAL INSECT REPELLENT

**Use(s)** INSECT REPELLENT • INSECTICIDE  
**MSDS Date** 21 Jun 2010

### 2. HAZARDS IDENTIFICATION

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO ASCC CRITERIA

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

**UN No.** 1950                      **DG Class** 2.1                      **Subsidiary Risk(s)** 3 (Flammable liquid)  
**Packing Group** None Allocated                      **Hazchem Code** 2Y

### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
DIETHYL TOLUAMIDE (DEET)	C12-H-17-N-0	134-62-3	19%
DIPROPYL ISOCINCHOMERONATE	C13-H17-N-O4	136-45-8	4.5%
N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE	C17-H25-N-O2	113-48-4	1%
ADDITIVE(S)	Not Available	Not Available	Not Available
PROPELLANT(S)	Not Available	Not Available	Not Available

### 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. Apply artificial respiration if not breathing.

**Skin** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

**Ingestion** For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting. Ingestion is considered unlikely due to product form.

**Advice to Doctor** Treat symptomatically.

**Product Name**      **DAVID GRAYS SCRAM PERSONAL INSECT REPELLENT TROPICAL STRENGTH**

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## 5. FIRE FIGHTING MEASURES

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<b>Flammability</b>	Highly flammable. May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition. Vapour may form explosive mixtures with air. Eliminate all ignition sources including cigarettes, open flames etc. when handling. Aerosol cans may explode when heated above 50°C. May also evolve nitrogen oxides when heated to decomposition.
<b>Fire and Explosion</b>	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.
<b>Extinguishing</b>	Dry agent, carbon dioxide or water fog. Prevent contamination of drains or waterways.
<b>Hazchem Code</b>	2Y

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## 6. ACCIDENTAL RELEASE MEASURES

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<b>Spillage</b>	If cans/containers are punctured (bulk), use personal protective equipment. Clear area of all unprotected personnel. Ventilate area where possible. Collect and allow to discharge outdoors. Contain spillage, then cover / absorb spill with non-combustible absorbant material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.
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## 7. STORAGE AND HANDLING

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<b>Storage</b>	Store in a cool, dry, well ventilated area, removed from oxidising agents, acids, alkalis, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Aerosol cans may explode and rocket when subject to extreme heat or pressure.
<b>Handling</b>	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.

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## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

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<b>Exposure Stds</b>	No exposure standard(s) allocated.
<b>Biological Limits</b>	No biological limit allocated.
<b>Engineering Controls</b>	Avoid inhalation. Use in well ventilated areas. 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.
<b>PPE</b>	Personal Protective Equipment is not required under normal conditions of use.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance</b>	CLEAR LIQUID (AEROSOL DISPENSED)	<b>Solubility (Water)</b>	NOT AVAILABLE
<b>Odour</b>	SLIGHT ODOUR	<b>Specific Gravity</b>	NOT AVAILABLE
<b>pH</b>	NOT AVAILABLE	<b>% Volatiles</b>	NOT AVAILABLE
<b>Vapour Pressure</b>	315 - 345 kPa @ 25°C	<b>Flammability</b>	HIGHLY FLAMMABLE
<b>Vapour Density</b>	NOT AVAILABLE	<b>Flash Point</b>	-104°C (Propellant)
<b>Boiling Point</b>	-42°C (Propellant)	<b>Upper Explosion Limit</b>	9.6 % (Propellant)
<b>Melting Point</b>	NOT AVAILABLE	<b>Lower Explosion Limit</b>	1.5 % (Propellant)
<b>Evaporation Rate</b>	NOT AVAILABLE		
<b>Appearance</b>	CLEAR LIQUID (AEROSOL DISPENSED)	<b>Odour</b>	SLIGHT ODOUR

Product Name **DAVID GRAYS SCRAM PERSONAL INSECT REPELLENT TROPICAL STRENGTH**

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## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable under recommended conditions of storage.
<b>Conditions to Avoid</b>	Avoid heat, sparks, open flames and other ignition sources.
<b>Material to Avoid</b>	Incompatible with oxidising agents (eg. hypochlorites), acids (eg. nitric acid), alkalis (eg. hydroxides), heat and ignition sources.
<b>Hazardous Decomposition Products</b>	May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition. May also evolve nitrogen oxides when heated to decomposition.
<b>Hazardous Reactions</b>	Polymerization will not occur.

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## 11. TOXICOLOGICAL INFORMATION

<b>Health Hazard Summary</b>	Low toxicity when used in low concentrations - eye irritant. Under normal conditions of use, adverse health effects are not anticipated. Individuals with sensitive skin may experience some irritation. Diethyl toluamide has been shown in experimental animal studies to cause reproductive and mutagenic effects following skin contact when undiluted and at high dosage rates. No adverse health effects are expected when the product is used in accordance with label directions.
<b>Eye</b>	Irritant. Contact may result in irritation, lacrimation, pain and redness.
<b>Inhalation</b>	Low irritant. Over exposure may result in irritation of the nose and throat, with coughing. High level exposure may result in dizziness, nausea and headache.
<b>Skin</b>	Non - low irritant. Prolonged or repeated contact may result in mild irritation. Some individuals may experience allergic reaction.
<b>Ingestion</b>	Ingestion is considered unlikely due to product form.
<b>Toxicity Data</b>	DIETHYL TOLUAMIDE (DEET) (134-62-3) LC50 (Inhalation): 5950 mg/m <sup>3</sup> (rat) LD50 (Ingestion): 1170 mg/kg (mouse) LD50 (Skin): 3170 uL/kg (mouse) LDLo (Ingestion): 679 mg/kg (man) LDLo (Intravenous): 75 mg/kg (rabbit) TDLo (Ingestion): 0.3 mg/kg (women) TDLo (Skin): 35 mg/kg/5 days (human) DIPROPYL ISOCINCHOMERONATE (136-45-8) LD50 (Ingestion): 1600 mg/kg (mouse) LD50 (Intraperitoneal): 330 mg/kg (mouse) LD50 (Skin): 9400 mg/kg (rat) N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE (113-48-4) LD50 (Ingestion): 2800 mg/kg (rat) LD50 (Skin): 470 mg/kg (rat, rabbit) TDLo (Ingestion): 346 mg/kg (rat)

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## 12. ECOLOGICAL INFORMATION

<b>Environment</b>	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.
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## 13. DISPOSAL CONSIDERATIONS

<b>Waste Disposal</b>	For small amounts absorb contents with sand or similar and dispose of to an approved landfill site. Do not puncture or incinerate aerosol cans. Contact the manufacturer for additional information.
<b>Legislation</b>	Dispose of in accordance with relevant local legislation.

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## 14. TRANSPORT INFORMATION

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Product Name **DAVID GRAYS SCRAM PERSONAL INSECT REPELLENT TROPICAL STRENGTH**



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

<b>Shipping Name</b>	AEROSOLS				
<b>UN No.</b>	1950	<b>DG Class</b>	2.1	<b>Subsidiary Risk(s)</b>	3 (Flammable liquid)
<b>Packing Group</b>	None Allocated	<b>Hazchem Code</b>	2Y	<b>GTEPG</b>	2D1
<b>IATA</b>					
<b>Shipping Name</b>	AEROSOLS				
<b>UN No.</b>	1950	<b>DG Class</b>	2.1	<b>Subsidiary Risk(s)</b>	3 (Flammable liquid)
<b>Packing Group</b>	None Allocated				
<b>IMDG</b>					
<b>Shipping Name</b>	AEROSOLS				
<b>UN No.</b>	1950	<b>DG Class</b>	2.1	<b>Subsidiary Risk(s)</b>	3 (Flammable liquid)
<b>Packing Group</b>	None Allocated				

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## 15. REGULATORY INFORMATION

<b>Poison Schedule</b>	A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).
<b>AICS</b>	All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

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## 16. OTHER INFORMATION

<b>Additional Information</b>	<p>ABBREVIATIONS:</p> <p>ADB - Air-Dry Basis.</p> <p>BEI - Biological Exposure Indice(s)</p> <p>CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.</p> <p>CNS - Central Nervous System.</p> <p>EC No - European Community Number.</p> <p>IARC - International Agency for Research on Cancer.</p> <p>M - moles per litre, a unit of concentration.</p> <p>mg/m<sup>3</sup> - Milligrams per cubic metre.</p> <p>NOS - Not Otherwise Specified.</p> <p>NTP - National Toxicology Program.</p> <p>OSHA - Occupational Safety and Health Administration.</p> <p>pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).</p> <p>ppm - Parts Per Million.</p> <p>RTECS - Registry of Toxic Effects of Chemical Substances.</p> <p>TWA/ES - Time Weighted Average or Exposure Standard.</p>
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### 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.

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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**