



DAVID GRAY & CO PTY LIMITED

A.C.N. 008 671 127

2 Rawlinson Street O'Connor PO Box 2084 Palmyra DC

Western Australia 6961

Ph (08) 9337 4933 Fax (08) 9337 8316

Emergency Telephone Number (08) 9337 4933 (During Office Hours)

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MATERIAL SAFETY DATA SHEET

IDENTIFICATION

PRODUCT NAME: David Grays Thermal Fogging and ULV Insecticide Concentrate

PROPER SHIPPING NAME (ADG Code): Not "dangerous goods" for transport by road or rail according to Australian Code for the Transport of Dangerous Goods by Road or Rail.

SUSDP Classification: Schedule 5 (Standard for the Uniform Scheduling of Drugs and Poisons)

Risk phrases: R65 Harmful: May cause lung damage if swallowed.

Safety phrases: Not applicable

USE: For indoor and outdoor control of flying insect pests and American cockroaches (see label for further information)

PHYSICAL DESCRIPTION / PROPERTIES

APPEARANCE: Clear yellow to pale brown liquid

ODOUR: Mild aromatic odour

VAPOUR PRESSURE: Not available

SPECIFIC GRAVITY: 0.85 – 0.95 at 20 °C

FLASH POINT: 68 °C

FLAMMABILITY LIMITS: 0.6 – 7%

SOLUBILITY IN WATER: Emulsifies

INGREDIENTS

CHEMICAL NAME	CAS.NO.	PROPORTION
Bioresmethrin	28434-01-7	50 g/L
Piperonyl Butoxide	51-03-6	400 g/L
Liquid hydrocarbon and Other ingredients	Not hazardous	Up to 1000 g/L

HEALTH HAZARD INFORMATION

ACUTE

SWALLOWED: Harmful: May cause lung damage if swallowed. Symptoms include headache, dizziness, drowsiness, cramps, nausea, vomiting, diarrhoea.

Oral Toxicity: LD₅₀ rat: 7,070 – 8000 mg/kg (bioresmethrin)
LD₅₀ rat: 5,630 mg/kg (piperonyl butoxide)

EYE: Mild irritant

SKIN: Mild irritant and may cause skin to dryness. Avoid contact with skin

Dermal Toxicity: LD₅₀ rat: 10,000 mg/kg (bioresmethrin)
LD₅₀ rabbit: 2,000 mg/kg (piperonyl butoxide)

INHALED: DO NOT breath vapour. Direct inhalation of spray may produce respiratory irritation and can result in headaches, dizziness, drowsiness, cramps, nausea, vomiting, diarrhoea.

Inhalation Toxicity: LC₅₀ (4 Hours) rat: 5.28 mg/L (bioresmethrin)
LC₅₀ (4 Hours) rat > 5.9 mg/L (piperonyl butoxide)

CHRONIC:

Bioresmethrin was not embryotoxic or teratogenic in animal studies. Marginally higher incidences of benign liver tumours in mice were observed following lifetime high exposure to piperonyl butoxide. The significance of this observation is questionable and under international review. The doses at which tumours were observed greatly exceed potential human exposure from labelled uses of this product. Piperonyl butoxide is not classified as a carcinogen. One reference indicates that exposure to large amounts of piperonyl butoxide may cause blood disorders or liver damage. Piperonyl butoxide is not mutagenic. No birth defects or adverse effects on reproductive parameters were found in studies with rats and rabbits. Piperonyl butoxide is not considered to be teratogenic.

FIRST AID

GENERAL:

In every case of suspected poisoning contact a doctor or a Poisons Information Centre immediately (Ph 131 126).

SWALLOWED:

Do not induce vomiting. Give a glass of water and seek immediate medical advice.

EYE: Rinse immediately with plenty of water and seek medical advice.

SKIN: Remove all contaminated clothing and shoes. Wash off skin immediately with soap and plenty of water. Seek medical advice if irritation persists. Launder contaminated clothing before re-use.

INHALED: Remove person to fresh air. Seek medical advice if exposure has been more than trivial.

FIRST AID FACILITIES: Soap, water,

ADVICE TO DOCTOR:

There is no specific antidote. Treat symptoms. This product contains a hydrocarbon solvent. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary edema.

PRECAUTIONS FOR USE

Exposure standards:

No exposure standard has been assigned by the National Occupational Health and Safety Commission (Worksafe Australia). The manufacturer of the hydrocarbon solvent recommends a TWA exposure limit of 100 ppm.

Engineering controls:

Control process conditions to avoid contact. Use local exhaust ventilation during manufacture.

Personal Protective Equipment:

Eyes: Chemical goggles

Clothing: Full-length work clothes

Gloves: PVC or nitrile gloves

Respiratory: Approved pesticides respirator during spraying

Other: Do not eat, drink or smoke until after washing. Wash thoroughly after handling. After each day's use wash gloves, goggles and contaminated clothing.

SAFE HANDLING INFORMATION

HANDLING:

Keep out of reach of children. Use only in a well-ventilated area. Store product in the closed, original container in a cool, well-ventilated area, protected from light. Avoid ingestion and inhalation. Do not apply in the presence of naked flames, hot surfaces or unprotected electrical equipment.

STORAGE:

Store product in the closed, original container in a cool, well-ventilated area, protected from light.

TRANSPORT

Product is not classified as a dangerous good in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail.

SPILLAGE

Wear appropriate clothing while cleaning up spill (see Personal Protection). Extinguish any ignition sources. Prevent entry into drainage systems, waterways, rivers, etc. Apply absorbent material such as sand, earth or attapulgite to contain the spill. Sweep up the material when absorption is complete. Wash contaminated surfaces with a mild bleach solution (sodium hypochlorite).

DISPOSAL

Disposal of contaminated material must be done in accordance with State and/or Local regulations. Triple rinse containers with water and add rinsings to tank mix. Dispose of the empty containers at a local authority landfill. Do not burn empty containers or product. Do not allow chemical containers, spray or washings to contaminate drains, sewers, streams, ponds or any waterway.

FIRE/EXPLOSION HAZARD

EXTINGUISHING MEDIA: Water spray, carbon dioxide, foam, dry chemical. Do not use a water jet from a fire hose.

HAZARDS FROM COMBUSTION PRODUCTS: Heating/combustion will generate oxides of carbon and nitrogen, and other irritant and toxic fumes.

PRECAUTIONS FOR FIRE FIGHTERS:

This product is a combustible liquid. Heating/combustion will generate oxides of carbon and nitrogen, and other irritant and toxic fumes. Fire fighters should wear full protective clothing and self-contained breathing apparatus. Do not release contaminated water into the environment. Keep intact containers cool by spraying with water.

CHEMICAL STABILITY:

Stable under normal conditions. No hazards are expected if the material is handled, stored and used according to instructions and government regulations.

Hazardous polymerisation: Not known to produce hazardous reactions.

Conditions to avoid: Extreme heat

Incompatible materials: Avoid oxidizing agents and alkalis.

Hazardous decomposition products: Bioresmethrin decomposes in UV light

OTHER INFORMATION

ECOTOXICITY DATA:

This product is very toxic to fish and aquatic organisms

Fish toxicity: Bioresmethrin LC₅₀: 0.00062 – 1.0 mg/L (96 h) fish
Piperonyl butoxide LC₅₀: 5.3 mg/L (24 h) carp

Daphnia toxicity: Bioresmethrin EC₅₀: 0.0008 mg/L(48 h) Daphnia

Bird toxicity: Bioresmethrin LD₅₀: >10,000 mg/kg chickens
Piperonyl butoxide LD₅₀: >100 mg/kg starlings

Bee toxicity: Bioresmethrin: very toxic to bees
Piperonyl butoxide: not toxic to bees.

Environmental fate

Persistence and degradation: Bioresmethrin degrades in light

CONTACT POINT

TITLE: Celine Schnell
TELEPHONE NUMBER: (08) 9337 4933
AUTHORISED: **Production Chemist**
DATE: **9 February 2011**

NOTICE:

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

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 MSDS.

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