MATERIAL SAFETY DATA SHEET

IDENTIFICATION

HAZARDOUS ACCORDING TO CRITERIA OF WORKSAFE AUSTRALIA

PRODUCT NAME: Termite Spray

OTHER NAME: None Allocated
MANUFACTURERS CODE: None Allocated
PROPER SHIPPING NAME (ADG Code): None Allocated
UN NUMBER: None Allocated
DANGEROUS GOODS CLASS: None Allocated
SUBSIDIARY-RISK: None allocated
PACKAGING GROUP: None Allocated
HAZCHEM CODE: None Allocated
POISONS SCHEDULE: S5 (Caution)
USE: For control of Termites and Ants as per directions for use.

PHYSICAL DESCRIPTION / PROPERTIES

APPEARANCE: Clear slightly yellow liquid, slight mercaptan odour
MELTING POINT: < -20°C
BOILING POINT: Hydrocarbon solvent 178 – 209°C
VAPOUR PRESSURE: 0.074 kPa solvent, 2.5x10^-6 kPa chlorpyrifos
DENSITY: 0.919
FLASH POINT: >66oC
FLAMMABILITY LIMITS: None allocated
SOLUBILITY IN WATER: Produces an emulsion
CORROSIVENESS: Corrosive to copper and brass
OTHER PROPERTIES: Do not expose to oxidising agents, acids, alkalis,

INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS.NO.</th>
<th>PROPORTION</th>
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<tbody>
<tr>
<td>Chlorpyrifos</td>
<td>2921-88-2</td>
<td>50g/L</td>
</tr>
<tr>
<td>Hydrocarbon solvent</td>
<td>64742-94-5</td>
<td>849g/L</td>
</tr>
<tr>
<td>Other inerts determined to be non-hazardous</td>
<td>-</td>
<td>To 100%</td>
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</tbody>
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HEALTH HAZARD INFORMATION

HEALTH EFFECTS

HAZARD CLASSIFICATION (In accordance with criteria of Worksafe Australia): Xn - Harmful

RISK PHRASES: R24/25 – Toxic in contact with skin and if swallowed

SAFETY PHRASES: S28 – After contact with skin, wash immediately with plenty of soap and water.
S36/37 – Wear suitable protective clothing and gloves.
S44 – If you feel unwell, contact a doctor or Poisons Information Centre immediately.
National Poisons Information Centre 131 126

GENERAL:
Excessive exposure may cause organophosphorus cholinesterase inhibition. Poisoning symptoms include headaches, dizziness, nausea, diarrhoea, incoordination, muscle twitching, tremors, abdominal cramps, tightness in chest, sweating, blurred vision, salivation, excessive urination and convulsions.

ACUTE SWALLOWED:
The acute oral toxicity is moderate. Ingestion of the concentrate may cause injury or death. If aspirated (concentrate enters lungs) may cause lung damage due to chemical pneumonia caused by petroleum like solvents. Oral LD$_{50}$ (rat) 165mg/kg (chlorpyrifos)
For product Oral LD$_{50}$ (rat) 2400mg/kg (calculated)

EYE:
Product is a moderate eye irritant

SKIN:
The acute dermal toxicity is low, however repeated exposure may result in absorption of harmful amounts. Repeated skin contact may cause allergic reactions. Dermal LD$_{50}$ (rabbit) 2000mg/kg (chlorpyrifos).
For product LD$_{50}$ (rabbit) > 35 000mg/L

INHALED:
The acute inhalation toxicity is moderate. Excessive exposure to spray mist may be harmful. Prolonged exposure to the concentrate vapour may cause eye and respiratory irritation, dizziness, headaches and narcotic effects. Inhalation LD$_{50}$ (rat) = >22 mg/L chlorpyrifos (1 hour)

CHRONIC:
Chlorpyrifos does not cause generic change or accumulate in the body. Long term carcinogenicity studies of the active ingredient, chlorpyrifos, on rats and mice showed no increase in tumours
FIRST AID

GENERAL:
In every case of suspected poisoning contact a doctor or a Poisons Information Centre immediately.

SWALLOWED:
Induce vomiting preferably using Ipecac Syrup APF. Seek urgent medical assistance. If more than 15 minutes from medical assistance, give one atropine tablet every 5 minutes until dryness of mouth occurs then seek medical attention immediately. **NOTE:** Do not give fluids/tablets or induce vomiting if patient is unconscious or convulsing.

EYE:
Hold eyelids open and flush eyes with water for at least fifteen minutes. Seek medical attention.

SKIN:
Immediately remove contaminated clothing and wash skin thoroughly with soap and water for at least fifteen minutes. If symptoms of poisoning occur give atropine tablets as above and seek medical attention immediately.

INHALED:
Immediately remove patient to fresh air. If difficulty in breathing is experienced, give oxygen and artificial respiration if necessary.

FIRST AID FACILITIES:
Soap, water, Ipecac Syrup APF, Atropine tablets

ADVICE TO DOCTOR:
Chlorpyrifos is a cholinesterase inhibitor. Preferred antidote: atropine by injection or atrovent/ipratropium by airway puff. David Grays Termiticide spray contains petroleum type solvents and the benefits of induced vomiting must be weighed against possibility of chemical poisoning.

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**PRECAUTIONS FOR USE**

**EXPOSURE STANDARDS:**
Worksafe Occupational Exposure Standard (TWA – Time Weighted Average)
Chlorpyrifos - 0.2mg/m³

Time Weighted Average (TWA) means the average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five day working week.

**ENGINEERING CONTROLS:**
Use only in a well ventilated area.
PERSONAL PROTECTION:
When handling the product, preparing and using spray wear:
- elbow length PVC neoprene or nitrile gloves.
- goggles.
Remove contaminated clothing immediately and wash thoroughly. Wash hands, face and arms immediately after use and before eating and drinking.

FLAMMABILITY:
Not flammable under normal conditions of use.

SAFE HANDLING INFORMATION

STORAGE
Store product in original container only in a locked, well ventilated area out of direct sunlight.

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.

Product is a pesticide and should be segregated from other incompatible products eg foodstuffs.

SPILLAGE
Wear appropriate clothing while cleaning up spill (see Personal Protection). Apply absorbent material such as sand, earth or attapulgite to contain the spill. Sweep up the material when absorption is complete. If product spilt indoors, wash contaminated surfaces with 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. Destroy empty containers by breaking, crushing or puncturing them. 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
Concentrate will support combustion. A combination of the solvent vapour in air may form an explosive mixture, Chlorpyrifos decomposes at temperatures > 130 degrees C. Rapid decomposition occurs above 160 degrees C. Toxic and irritating gases may be formed if involved in a fire. Full personal protection is required.

HAZARDOUS DECOMPOSITION PRODUCTS:
Hydrogen chloride, nitric oxides, oxides of phosphorus, ethyl sulphide and diethyl sulphide.

FIRE FIGHTING EQUIPMENT:
Foam, carbon dioxide (CO₂), or dry chemical extinguishers may be used. Run-off must be contained.
OTHER INFORMATION

ECOTOXICITY DATA:
Chlorpyrifos is highly toxic to birds, fish and bees and moderately toxic to pets and livestock. It has low toxicity to earthworms.
Chlorpyrifos does not bioaccumulate in animal systems.

ENVIRONMENTAL FATE:
In soil Chlorpyrifos is readily degraded by hydrolysis and microbial action. The half life of chlorpyrifos may range between sixty and one hundred and twenty days, depending on climatic conditions and soil types. Biochemical degradation is highly accelerated in alkaline soils.

CONTACT POINT

TITLE: Production Chemist

TELEPHONE NUMBER: (08) 9337 4933

AUTHORISED:

DATE:

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.

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