

Dursban^{*} SL Insecticide

Effective Date: April 2001

Statement of Hazardous Nature: Hazardous according to criteria of the Toxic Substances Act (1979)**COMPANY DETAILS**

Company: Dow AgroSciences (NZ) Ltd

Address: 89 Paritutu Road
New Plymouth
New Zealand

Telephone Number: (06) 751 2400

Emergency Telephone Number: 0800 CHEMCALL (0800 243 622) (available 24 hours, 7 days)

National Poisons Information Centre: (03) 474 7000 (available 24 hours, 7 days)

IDENTIFICATION

Product Name: Dursban SL Insecticide

Manufacturer's Product Code: 69890

U.N. Number: 3082

Dangerous Goods Class: 9 (Marine Pollutant)

Hazchem Code: 2X

Toxic Substances Schedule: Schedule 3, standard poison

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Chlorpyrifos)

Packaging Group: III

Dangerous Goods - Initial Emergency Response Guide SAA/SNZ HB76:1996 - Guide No. 47

Uses: For control of domestic insect pests as specified on the label.

Physical Description /Properties

Appearance & Odour: Off-white liquid. No odour data.

Boiling Point: Approx. 100°C @ 100 kPa

Vapour Pressure: 1.87 x 10⁻⁵ mm Hg @ 25°C (chlorpyrifos)

Specific Gravity: 1.03 g/mL at 20°C

Volatile Materials: Water component

Flash Point: Does not burn

Solubility in Water: Disperses as a suspension in water

Corrosiveness: Not corrosive

Ingredients**Chemical Entity**

Chlorpyrifos	CAS # 2921-88-2	200 g/L
Other non hazardous ingredients		Less than 850 g/L

HEALTH HAZARD INFORMATION**Health Effects**

The health effects of Dursban SL have been studied using toxicity tests conducted on animals. These tests are conducted using high doses compared to likely human exposure. The active ingredient of Dursban SL is the organophosphate compound chlorpyrifos. Excessive exposure may cause organophosphate type cholinesterase inhibition. Symptoms of excessive exposure to chlorpyrifos may include pallor, nausea, vomiting, diarrhoea, abdominal cramps, headaches, dizziness, eye pain, blurred vision, constriction or dilation of the eye pupils, tears, salivation, sweating and confusion. Severe poisoning will affect the central nervous system, producing incoordination, slurred speech, loss of reflexes, weakness, fatigue, involuntary muscle contractions, twitching, tremors of the tongue or eyelids, and eventually paralysis of the body extremities and the respiratory muscles. In severe cases there may also be involuntary defaecation or urination, psychosis, irregular heart beats, unconsciousness and convulsions.

Acute

Swallowed: The acute oral toxicity is low due to microencapsulation of the active ingredient. The oral LD₅₀ (rat) is greater than 5,000 mg/kg. No immediate hazards are anticipated from ingestion, although it is recommended to consult a doctor immediately.

Eyes: May cause slight eye irritation.

Skin Contact: The acute dermal toxicity is low and a single prolonged dermal exposure is not likely to result in absorption of harmful amounts. Dursban SL Insecticide is not a skin sensitiser. The dermal LD₅₀ (rabbit) is above 5,000 mg/kg.

Inhaled: Absorption of harmful amounts by inhalation is unlikely with normal use.

Chronic

Possible chronic health effects from exposure to Dursban SL are based on studies on the active ingredient. Chlorpyrifos has been shown not to cause cancer and does not interfere with reproduction and does not cause genetic damage or birth defects. Chlorpyrifos is rapidly metabolised and excreted, and as a result, does not accumulate in the body. Repeated minor exposure may have a cumulative poisoning effect.

First Aid

General: The National Poisons Information Centre [Ph: (03) 474 7000 (24 hours)] or a doctor should be consulted in every case of suspected chemical poisoning. Never give fluids or induce vomiting if a patient is unconscious or convulsing, regardless of cause of injury. If breathing difficulties occur, seek medical attention immediately.

Swallowed: Contact a doctor or the National Poisons Information Centre immediately. DO NOT induce vomiting. DO NOT give anything by mouth to an unconscious person.

Eyes: Immediately flush with cold water. Continue for at least 15 minutes. Contact a doctor.

Skin: Immediately wash skin with plenty of soap and water. Contact medical personnel. Remove contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes and other contaminated leather articles such as belts and watchbands.

Inhaled: If ill-effects occur move to fresh air. Contact a doctor.

HEALTH HAZARD INFORMATION (Continued)

First Aid Facilities: Eye wash, soap and water.

Note to Physician: Dursban SL contains chlorpyrifos a cholinesterase inhibitor. The decision of whether to induce vomiting or not should be made by an attending physician. If lavage is performed, endotracheal and oesophageal control is adviseable. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically with supportive care. If exposed, plasma and red blood cell cholinesterase tests may indicate significance of exposure (baseline data are useful). Atropine, only by injection, is the preferred antidote. Oximes, such as 2-PAM/protopam, may be therapeutic if used early, however, use only in conjunction with atropine. In case of severe acute poisoning, use antidote immediately after establishing an open airway and respiration. Treatment based on judgement of the physician in response to reactions of the patient.

PRECAUTIONS FOR USE

Exposure Standards:

Chlorpyrifos: 0.2 mg/m³ - skin (NZ Workplace Exposure Standards 1994)

Where "skin" indicates that absorption through the skin may be a significant source of exposure.

Engineering Controls

In industrial situations, concentration values below the TWA value should be maintained. Values may be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify the process or environment to reduce the problem.

Personal Protection

Avoid contact with eyes and skin. When opening the container, preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow-length PVC gloves, and a face shield and goggles. After use and before eating, drinking, or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and face shield and goggles and contaminated clothing.

SAFE HANDLING INFORMATION

Storage and Transport

Observe all relevant regulations regarding sale, transport and storage of this class of product. Store in tightly closed original containers in a securely locked, well-ventilated and cool place, out of direct sunlight. Avoid contact with food, foodstuff empties, feedstuffs, fertilisers, seeds, clothing, drugs or other household goods during transport and storage. Keep from extreme heat and open flames.

Spills

Small Spill: Wear protective equipment (see Personal Protection). Apply absorbent material such as earth, clay granules, and or cat litter to the spill. Sweep up material when absorption is completed and contain in a refuse vessel for disposal in the same manner as for containers (See Disposal section). If

spilled inside a building, wash contaminated surfaces to deactivate the chlorpyrifos with a solution of bleach (sodium hypochlorite), prepared according to the bleach label instructions. Prevent entry of spilled chemical or damaged containers into drains, dams, or waterways.

SAFE HANDLING INFORMATION (Continued)

Large Spill: Wear protective clothing (see Personal Protection). Clear area of all unprotected personnel. Place leading containers into salvage drums. Apply absorbent material such as earth, sand or cat litter to the spill area. Form a barricade around spill and in front of drain or waterways in spill vicinity, using earth or other available material. Prevent entry of chemical or used/damaged containers into drains, streams or waterways.

Contact Emergency Services on 111 immediately and Dow AgroSciences Emergency Response System on 0800 CHEMCALL (0800 243 622)

Disposal

Contaminated material must be disposed of in accordance with all national, regional and district requirements.

Small Quantities and Containers: Bury contaminated material at an approved landfill. Puncture top, bottom and sides of containers and bury below 500mm in soil.

Large Quantities: Contact Dow AgroSciences (NZ) Limited and seek advice.

Fire/Explosion Hazard

There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

OTHER INFORMATION

Ecotoxicity Data

Chlorpyrifos is highly toxic to birds, freshwater fish, aquatic invertebrates and estuarine and marine organisms. Chlorpyrifos is also highly toxic to honeybees and should not be used when bees are actively collecting pollen and nectar. Chlorpyrifos is moderately toxic to pets and livestock and has low toxicity to earthworms.

Environmental Fate

Chlorpyrifos absorbs strongly to soil particles and it is not readily soluble in water. It is therefore immobile in soils and unlikely to leach or to contaminate groundwater. At termiticide use rates the half-life approximates 380 days depending on sunlight, soil type and climatic conditions. Absorbed chlorpyrifos is subject to degradation by UV light, chemical hydrolysis and by soil microbes.

In situations where the product accidentally enters water bodies, chlorpyrifos will bind to organic particles in the water and sediment. The concentration of chlorpyrifos that dissolves (approx. 1ppm) is hydrolysed rapidly in twelve hours to six days depending on pH. Both absorbed and dissolved chlorpyrifos are also lost from water through volatilization and to a lesser extent photodegradation. Chlorpyrifos is degraded eventually into carbon dioxide and simple organic molecules.

CONTACT POINT

For further product information call Dow AgroSciences (NZ) Ltd on 0800 803 939 during business hours.

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