

Date of Issue**September 1998****Company****Dow AgroSciences Australia Ltd**

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Address**Level 5, 20 Rodborough Road****Frenchs Forest NSW 2086****Customer Service Toll Free Number (Mon-Fri 8am-5pm EST)****1800 700 096****Emergency Telephone Number (24 hours)****1800 033 882****(EMERGENCIES ONLY)**

Lontrel* Herbicide

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Not classified as hazardous according to the criteria of The National Occupational Health & Safety Commission (NOHSC).

I. IDENTIFICATION

Product Name: Lontrel Herbicide.**Dangerous Goods Class:** None allocated.**Shipping Names:** None.**Sub Risk Class:** None allocated.**Product Code:** IWD 4316.**Packaging Group:** None allocated.**UN No:** None allocated.**Poison Schedule:** S5.**Hazchem Code:** None allocated.

Uses: For the control of a wide range of broadleaf weeds in wheat, barley, oats, and other crops as specified on the label.

PHYSICAL APPEARANCE & PROPERTIES

Appearance: Clear to slightly hazy blue liquid. **Specific gravity:** 1.163 g/mL at 20°C.**Boiling point:** Approximately 100°C at 100kPa. **Solubility in water:** Completely soluble.**Volatile materials:** Water component: approx 50% at 100°C. **Corrosiveness:** Not corrosive.**Flashpoint:** Does not burn. **Vapour Pressure:** No data for the triisopropanolamine salt, 1.33 mPa at 24°C (clopyralid acid).

INGREDIENTS

Chemical Entity	CAS No.	Proportion
Clopyralid triisopropanolamine salt (sufficient to give 300 g/L of the clopyralid acid equivalent)	057724-85-5	670 g/L
Other non hazardous ingredients		< 500 g/L

II. HEALTH HAZARD DATA

Note: The information given below is based on Lontrel formulations except for eye and skin irritation.

A. Health Effects

Acute

Swallowed: The acute oral toxicity is expected to be low and small amounts ingested incidentally due to industrial handling are not likely to be harmful. The oral LD₅₀ (rat) for other formulations is above 5000 mg/kg.

Eye: Not an eye irritant.

Skin: The acute dermal toxicity is expected to be low and a single dermal exposure is not likely to result in absorption of harmful amounts. The dermal LD₅₀ (rabbit) for other formulations is above 2000 mg/kg. Lontrel is not a skin irritant.

Inhaled: The acute inhalation toxicity is expected to be low and absorption of harmful amounts by inhalation is unlikely.

Chronic

Possible chronic health effects from exposure to Lontrel are based on the active ingredient. Rats and mice administered the active ingredient, clopyralid, in long-term carcinogenicity studies showed no increase in tumors when compared to the untreated group. Studies in rats and rabbits indicated that clopyralid does not cause birth defects or interfere with reproduction. Clopyralid does not cause genetic change and does not accumulate in the body. The ingredients are not listed as carcinogenic in Worksafe's document "Exposure Standards for Atmospheric Contaminants in the Occupational Environment" (May 1995).

B. First Aid

General: Consult The National Poisons Information Centre (Ph: 13 11 26) or a Doctor 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: If swallowed contact a doctor or hospital immediately.

Skin: This product has a low dermal toxicity. If on skin remove contaminated clothing, wash skin thoroughly with soap and water.

Eyes: If in eyes, hold eyes open and flood with water for at least 15 minutes and see a doctor.

Inhalation: If affected, remove from contaminated area to fresh air

Advice to Doctor: Treat symptomatically.

III. PRECAUTIONS FOR USE

- Exposure Standards:** A time weighted average (TWA) concentration for an 8 hour day, and 5 day week has not been established by The National Occupational Health & Safety Commission for any of the major ingredients in this product. There is a blanket limit of 10mg/m³ for dusts or mists when limits have not otherwise been established. The nature of this product makes it unlikely that this level will be approached in normal use. The ADI (Acceptable Daily Intake) for clopyralid is set at 0.5mg/kg/day. The corresponding NOEL (No-observable-effect-level) is set at 50mg/kg/day. Values taken from Australian ADI List, May 1995.
- 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:** May irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale the spray mist. When preparing spray and using the prepared spray, wear elbow-length PVC gloves and a face shield. 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.

IV. SAFE HANDLING INFORMATION

Storage & Transport:

Not classified as a dangerous good. No special storage and transport requirements. This product has no UN classification. This product is an S5 Poison. Store in tightly closed original container 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, sand, clay granules 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 necessary wash the spill area with an alkali detergent and water and absorb the wash liquid for disposal as above. Prevent entry of chemical or used/damaged containers into drains, streams or waterways.
- Large Spill:** Wear protective equipment (see Personal Protection). Clear area of all unprotected personnel. Place leaking 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 drains 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 000 immediately and notify Dow AgroSciences Australia Limited on 1800 033 882 (24 hours) or 1800 700 096 (Mon-Fri, 8am to 5pm EST).**

Disposal

Contaminated material must be disposed of in accordance with all State and/or Local regulations.

- Small quantities and containers:** Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling container, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.
- Large quantities:** Contact Dow AgroSciences 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.

Flashpoint: Does not burn.

Flammability limits: Not applicable. This product does not burn.

Extinguishing Media: This product does not burn. Use extinguishing media suited to the materials that are burning.

Special Fire Fighting procedures: When fighting fires involving significant quantities of this product, wear safety boots, non-flammable overalls, gloves, hat, goggles and self contained breathing apparatus. All skin areas should be covered.

Unusual Fire & Explosion Hazards: Fire decomposition products from this product may form toxic and corrosive mixtures in confined spaces. Likely to decompose only after heating to dryness followed by further strong heating.

Stability: This product is unlikely to spontaneously decompose.

Polymerisation: This product is unlikely to spontaneously polymerise.

Decomposition Products: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen, and under some circumstances, oxides of nitrogen. Hydrogen chloride gas, chlorides, and in some circumstances, phosgene. Water.

Materials to avoid: No particular incompatibilities.

V. OTHER INFORMATION

Ecotoxicity Data

Clopyralid has low toxicity to fish, birds, honey bees, livestock and aquatic organisms. Clopyralid does not bioaccumulate in animal systems.

Environmental Fate

In soil, Clopyralid will be degraded by microbial action within twelve months, with the most rapid breakdown occurring in warm, moist, aerated soils with high organic content. Clopyralid has a half-life between twelve and seventy days depending on soil type and climatic conditions. Minimal leaching of Clopyralid occurs and residues typically remain in the top fifteen centimetres of the soil profile. Clopyralid is not broken down in water by sunlight or hydrolysis.

VI. CONTACT POINT

FOR FURTHER PRODUCT INFORMATION CALL DOW AGROSCIENCES CUSTOMER SERVICE REPRESENTATIVES TOLL FREE 1800 700 096 DURING BUSINESS HOURS.

THIS MSDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER SHOULD READ THIS MSDS AND CONSIDER THE INFORMATION IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE INCLUDING IN CONJUNCTION WITH OTHER PRODUCTS. IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY. THE RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.