

## Clopyralid

Issued: July, 2010

### Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

<b>Trade Name:</b>	<b>UNITED FARMERS CLOPYRALID HERBICIDE</b>
<b>Substance:</b>	Active ingredient is a pyridine derivative.
<b>Product Use:</b>	Agricultural herbicide for use as described on the product label.
<b>Company Identification:</b>	Ravensdown Fertiliser Co-operative Limited - Incorporated in New Zealand
<b>Address:</b>	2 Birksgate Rd Rous Head North Fremantle, WA 6160
<b>Customer Centre:</b>	1800 624 122
<b>Poisons Information Centre:</b>	13 1126 in Australia, 0800 764 766 in New Zealand
<b>Emergency Telephone Number:</b>	For specialist advice call 1800 705 766 (24hr) (Emergencies Only)
<b>Transport Emergency:</b>	IN AN EMERGENCY, DIAL 000 - FIRE or POLICE

### Section 2: HAZARD IDENTIFICATION

<b>Statement of Hazardous Nature</b>	This product is classified as: Not classified as hazardous according to the criteria of NOHSC Australia. Not a Dangerous Good according to the Australian Dangerous Goods (ADG) Code.
<b>Risk Phrases:</b>	Not Hazardous - No criteria found.
<b>Safety Phrases:</b>	S24/25. Avoid contact with skin and eyes.

### Section 3: COMPOSITION INFORMATION

INGREDIENTS	CAS No	Conc,%	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Clopyralid (triisopropanolamine)	57754-85-5	300 g/L*	not set	not set
Other non hazardous ingredients	secret	to 100	not set	not set

\* This value is the Clopyralid content - the salt is present at about 670g/L

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term 'peak' is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

### Section 4: FIRST AID MEASURES

#### Emergency Overview

#### Physical Description & Colour:

Clear to hazy blue liquid.

#### Odour:

No specific data.

#### Major Health Hazards:

No significant risk factors have been found for this product.

#### General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call.

#### Inhalation:

First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

#### Skin Contact:

Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

<b>Eye Contact:</b>	No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes.
<b>Ingestion:</b>	If product is swallowed or gets in mouth, wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

## Section 5: FIRE FIGHTING MEASURES

<b>Fire and Explosion Hazards:</b>	There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. This product is likely to decompose only after heating to dryness, followed by further strong heating. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.
<b>Extinguishing Media:</b>	Not Combustible. Use extinguishing media suited to burning materials.
<b>Fire Fighting:</b>	If a significant quantity of this product is involved in a fire, call the fire brigade.
<b>Flash Point:</b>	Does not burn.
<b>Upper Flammability Limit:</b>	Does not burn.
<b>Lower Flammability Limit:</b>	Does not burn.
<b>Autoignition Temperature:</b>	Not applicable - does not burn.
<b>Flammability Class:</b>	Does not burn.

## Section 6: ACCIDENTAL RELEASE MEASURES

<b>Spills and Disposal:</b>	Wear appropriate protective clothing. Exclude non-essential people from the area. Contain spill and absorb with inert material such as soil, sand or absorbent granules and place in a sealable waste container. Dispose of waste safely in an approved landfill.
<b>Protective Clothing:</b>	For appropriate personal protective equipment see section 8.
<b>Environmental Precaution:</b>	Prevent from entering drains, waterways or sewers. If spill does enter waterways contact local authority.

## Section 7: HANDLING AND STORAGE

<b>Handling:</b>	Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.
<b>Storage:</b>	This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

## Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

The following Australian Standards will provide general advice regarding safety clothing and equipment:  
 Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Industrial Clothing: **AS2919**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

<b>Exposure Limits:</b>	Exposure limits have not been established by NOHSC for any of the significant ingredients in this product. The ADI for Clopyralid is set at 0.5mg/kg/day. The corresponding NOEL is set at 50mg/kg/day. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, Dec 2004. No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.
<b>Ventilation:</b>	No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that vapours and mists are minimised.
<b>Eye Protection:</b>	Eye protection is not normally necessary when this product is being used. However, if in doubt, wear suitable protective glasses or goggles.
<b>Skin Protection:</b>	The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.
<b>Protective Material Types:</b>	We suggest that protective clothing be made from the following materials: rubber, PVC.
<b>Respirator:</b>	Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical Description &amp; colour:</b>	Clear to hazy blue liquid.
<b>Odour:</b>	No specific data.
<b>Boiling Point:</b>	Approximately 100°C at 100kPa.
<b>Freezing/Melting Point:</b>	Approximately 0°C.
<b>Volatiles:</b>	Water component.
<b>Vapour Pressure:</b>	2.37 kPa at 20°C (water vapour pressure).
<b>Vapour Density:</b>	No data.
<b>Specific Gravity:</b>	Approx 1.15
<b>Water Solubility:</b>	Completely soluble in water.
<b>pH:</b>	No data.
<b>Volatility:</b>	No data.
<b>Odour Threshold:</b>	No data.
<b>Evaporation Rate:</b>	No data.
<b>Coeff Oil/water Distribution:</b>	No data
<b>Autoignition temp:</b>	Not applicable - does not burn.

## Section 10: STABILITY AND REACTIVITY

<b>Reactivity:</b>	This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.
<b>Conditions to Avoid:</b>	Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.
<b>Incompatibilities:</b>	Strong acids, strong bases, strong oxidising agents.
<b>Fire Decomposition:</b>	This product is likely to decompose only after heating to dryness, followed by further strong heating. Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas. Hydrogen chloride gas, other compounds of chlorine. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death. Hydrogen cyanide poisoning signs and symptoms are weakness, dizziness, headache, nausea, vomiting, coma, convulsions, and death. Death results from respiratory arrest. Hydrogen cyanide gas acts very rapidly; symptoms and death can both occur quickly.
<b>Polymerisation:</b>	This product will not undergo polymerisation reactions.

## Section 11: TOXICOLOGICAL INFORMATION

### Potential Health Effects

#### Inhalation

<b>Short Term Exposure:</b>	Significant inhalation exposure is considered to be unlikely. Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.
<b>Long Term Exposure:</b>	No data for health effects associated with long term inhalation.

#### Skin Contact:

<b>Short Term Exposure:</b>	Available data indicates that this product is not harmful. It should present no hazards in normal use. However product may be mildly irritating, but is unlikely to cause anything more than mild discomfort which should disappear once contact ceases.
<b>Long Term Exposure:</b>	No data for health effects associated with long term skin exposure.

#### Eye Contact:

<b>Short Term Exposure:</b>	Exposure via eyes is considered to be unlikely. This product may be mildly irritating to eyes, but is unlikely to cause anything more than mild discomfort which should disappear once product is removed.
<b>Long Term Exposure:</b>	No data for health effects associated with long term eye exposure.

#### Toxicity:

Clopyralid: LD<sub>50</sub> Oral, Rat 3738 (male)-2675 (female) mg/kg LD<sub>50</sub> Dermal, Rat = >2000mg/kg

#### Ingestion:

<b>Short Term Exposure:</b>	Significant oral exposure is considered to be unlikely. However, this product may be mildly irritating to mucous membranes but is unlikely to cause anything more than mild transient discomfort.
<b>Long Term Exposure:</b>	No data for health effects associated with long term ingestion.

#### Carcinogen Status:

<b>NOHSC:</b>	No significant ingredient is classified as carcinogenic by NOHSC.
<b>NTP:</b>	No significant ingredient is classified as carcinogenic by NTP.
<b>IARC:</b>	No significant ingredient is classified as carcinogenic by IARC.

#### Classification of

<b>Hazardous Ingredients:</b>	<b>Ingredient</b> Clopyralid 57754-85-5 Also 1702-17-6	<b>Risk Phrases</b> Conc>=10%: Xi; R41
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## Section 12: ECOLOGICAL INFORMATION

<b>Birds:</b>	LD <sub>50</sub> mallard: 1465mg/kg	LD <sub>50</sub> bobwhite quail: >2000mg/kg
<b>Fish:</b>	LC <sub>50</sub> rainbow trout: 103.5mg/L	LC <sub>50</sub> bluegill sunfish: 125mg/L
<b>Bees:</b>	LD <sub>50</sub> non toxic	
<b>Worms:</b>	LD <sub>50</sub> (Worms) >1000mg/kg	
<b>Animals:</b>	In rats, following oral administration, there is rapid and almost quantitative unchanged elimination in the urine.	

### Environmental Fate

<b>Plants:</b>	Clopyralid is not metabolised by plants.
<b>Soil/Environment:</b>	In soil, microbial degradation occurs. Slow degradation occurs in sterile soil. The major product is carbon dioxide only traces of other metabolites have been recorded. Aerobic soil degradation depends on initial concentration, soil temperature and soil moisture. Although data indicates potential for leaching, field dissipation and lysimeter studies demonstrate fairly rapid degradation and limited downward movement.

## Section 13: DISPOSAL INFORMATION

Follow label advice for the disposal of empty containers, packaging and for the return of refillable containers.

<b>Product Disposal:</b>	For the disposal of unwanted / unusable chemicals, seek advice from suppliers, local government, your local Waste Management Authority and consult ChemClear, 1800 008 182 <a href="http://www.chemclear.com.au/">http://www.chemclear.com.au/</a>
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<b>Container Disposal:</b>	Where possible, used containers should be recycled after triple rinsing. Check with local suppliers and or DrumMUSTER <a href="http://www.drummuster.com.au/">http://www.drummuster.com.au/</a> . Otherwise, bury at an authorised landfill. Before disposing of unwanted containers or used packaging on a property, ensure that all appropriate regulations, both Local and State Government, are observed. Significant penalties may apply.
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## Section 14: TRANSPORT INFORMATION

<b>ADG Code:</b>	This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.
<b>UN Number:</b>	None allocated
<b>SUSDP Classification:</b>	S5
<b>ADG Classification:</b>	None allocated. Not a Dangerous Good under the ADG Code.

## Section 15: REGULATORY INFORMATION

<b>AICS:</b>	All of the significant ingredients in this formulation are to be found in the public AICS Database. The following ingredients: Clopyralid, is mentioned in the SUSDP.
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## Section 16: OTHER INFORMATION

This MSDS contains only safety-related information. For other data see product literature.

This MSDS supersedes all others and was reviewed: February, 2010

Please read all labels carefully before using product.

This MSDS is prepared in accord with the ASCC document "National Code of Practice for the Preparation of Material Safety Data Sheets"2nd Edition [NOHSC:2011(2003)]