

Rygel Diflufenican 500 SC Herbicide

Not classified as hazardous according to criteria of National Occupational Health and Safety Commission.

1. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Supplier: Rygel Australia Pty Ltd
ACN: 106 839 007
Street Address: 103 Ordish Road, Dandenong South Vic 3175
Telephone: (03) 9768 2803
Facsimile: (03) 9768 2804
Emergency telephone number: National Poisons Information Centre: Dial 13 11 26.

Product name: Rygel Diflufenican 500SC Selective Herbicide
Chemical Family: Nicotinamide
Product Type: Group F Herbicide
Formulation type: Water dispersible granule
Product Use: For control of certain weeds in clover-based Pasture Field Peas, Lentils, Lupins and Oilseed Poppy as specified in the Directions for Use.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Entity	CAS No	Proportion
Diflufenican	83164-33-4	500g/L
Other Non-hazardous ingredients	secret	to balance

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS) or are Australian Pesticides & Veterinary Medicines Authority (APVMA) approved active constituents.

3. HAZARDS IDENTIFICATION

Other Information Poisons Schedule: Not Scheduled

4. FIRST AID MEASURES

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Inhalation Over-exposure by inhalation is improbable. Check for other causes of observed symptoms and seek medical advice.

Ingestion Rinse mouth and then drink plenty of water.

If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.

Skin Wash affected areas thoroughly with soap and water. Remove contaminated clothing and launder before re-use.

Eye If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice if irritation develops or persists.

First Aid Facilities If poisoning occurs, contact a doctor or Poisons Information Centre on 13 11 26 (Australia).

Advice to Doctor Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing Media If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.

MATERIAL SAFETY DATA SHEET

Specific Hazards Considered low risk due to water content, however upon evaporation of water the product is combustible.

Hazardous Combustion Products

If involved in a fire, the dehydrated components may emit oxides of carbon, oxides of nitrogen and fluorine compounds including hydrofluoric acid.

Protective Equipment

Breathable air apparatus should be worn when fighting a fire in which this product is involved.

Other Information Prevent fire water from entering drains or water bodies.

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect spilled material and waste in sealable open-top type containers for disposal.

Personal Protection

For appropriate personal protective equipment (PPE), refer Section 8.

Environmental Precautions

This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

Prevent from entering drains, waterways or sewers.

Use earthen bunds or absorbent bunding to prevent spreading of spillage.

7. HANDLING AND STORAGE

Handling Do NOT contaminate dams, rivers or streams, or any other water bodies with pesticide or used containers.

Storage Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards

No exposure standards have been set for this product or the active ingredients.

The manufacturer has recommended the following exposure standard for diflufenican: TLV (TWA) 2.3 mg/m³, STEL - mg/m³.

Personal Protective Equipment

It is good practice to wear suitable personal protective equipment (PPE).

When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles.

Engineering Controls

Handle in well ventilated areas, generally natural ventilation is adequate.

Hygiene Measures

After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

After each day's use, wash contaminated clothing and safety equipment.

Requirements Concerning Special Training

NSW regulations require that people who use pesticides in their job or business must have training in the application of the materials. By 1st September, 2005 all users must have received such training.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Viscous, light brown liquid suspension
Boiling Point:	> 100°C
Specific Gravity:	1.175 at 20°C
Flashpoint:	Non flammable
Flammability Limits:	Not determined
Solubility in Water:	Disperses in water (active ingredient is insoluble)
pH:	8.2
Formulation:	Suspension concentrate
Vapour Pressure	4.25 x 10 ⁻³ mPa for diflufenican
Partition co-efficient, n-octanol/water	Kow Log P is 4.9 for diflufenican

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Flammability

Non combustible material.

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions.

Hazardous Polymerization

Hazardous polymerisation is not possible.

Hazardous Reaction

Not classified as hazardous according to criteria of NOHSC

11. TOXICOLOGICAL INFORMATION

Inhalation May cause irritation to mucous membranes.

Ingestion Low toxicity. However, swallowing large amounts of concentrate may cause nausea and vomiting.

Skin May irritate the skin.

Eye Non-irritant. May cause slight irritation to the eyes.

Chronic Effects Chronic feeding studies in animals do not indicate any cumulative toxicity and show that the compound is neither a carcinogen nor a teratogen.

Mutagenicity Data indicates no mutagenic effects.

Acute Toxicity - Oral LD50 (rat) >2000 mg/kg for diflufenican

Acute Toxicity - Dermal

LD50 (rat) >2000 mg/kg for diflufenican

Acute Toxicity - Inhalation

LC50 (rat) (4hr) >2.34 mg/L for diflufenican

Eye Irritation Not an eye irritant.

Skin Irritation Not a skin irritant.

Skin Sensitisation Product is not a skin sensitiser.

Other Information The Australian Acceptable Daily Intake (ADI) for diflufenican for a human is 0.2 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 16.3 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing, 'ADI List', TGA, December 2004).

12. ECOLOGICAL INFORMATION

Other Precautions Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.

Environ. Protection Spray drift can cause damage, read the label for more information.

Persistence / Degradability

Half life in soil is typically 15 - 30 weeks, (moist soil).

Acute Toxicity – Fish

The following is data for the active ingredient, diflufenican.

LC50 (96 hr) for rainbow trout is 56 - 100 mg/L

LC50 (96 hr) for carp is 105 mg/L

Acute Toxicity - Daphnia

LC50 (48 hr) for daphnia is >10 mg/L

Acute Toxicity – Other Organisms

Birds: Not toxic to birds. LD50 for quail is >2150 mg/kg

Not toxic to bees.

13. DISPOSAL CONSIDERATIONS

Product Disposal

On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemCollect).

Container Disposal

MATERIAL SAFETY DATA SHEET

Do not use this container for any other purpose. Triple rinse containers, add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations.

drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMUSTER symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program.

If no landfill is available, bury the containers below 500mm 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.

14. TRANSPORT INFORMATION

U.N. Number	None Allocated
Proper Shipping Name	None Allocated
DG Class	None Allocated
Hazchem Code	None Allocated
Packing Group	None Allocated
Storage and Transport	

Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

15. REGULATORY INFORMATION

Poisons Schedule Not Scheduled

Packaging & Labelling

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

AICS (Australia)

All of the components in this product are listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

All information contained in this document is as accurate as possible based on information submitted by raw material suppliers. **Rygel Australia Pty Ltd** will not be responsible for any damages that may result from reliance on the information contained herein.

Contact:	Peter Howat	Mobile	0417 921 501
	103 Ordish Road	Phone	61 3 9768 2803
	Dandenong South, Vic 3175	Fax	61 3 9768 2804

National Poisons Information Centre: Dial 13 11 26 (from anywhere in Australia).