



MATERIAL SAFETY DATA SHEET

Rygel Clopyralid 750 SG Herbicide

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

Supplier: Profeng Australia Pty Ltd
ACN: 156 055 533
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Emergency telephone number: National Poisons Information Centre:
Phone Australia 13 11 26

Product name: Rygel Clopyralid 750 SG Herbicide
Product Use: A herbicide for the control of a wide range of broadleaf weeds in fallow, lucerne, maize, millets, pastures, sorghum, sugarcane, sweet corn, winter cereals. Also for the control of woody weeds in agricultural non-crop areas, commercial and industrial areas, pastures and rights-of-way.

2. HAZARDS IDENTIFICATION

Statement of Hazardous Nature

This product is classified as: Xi, Irritating. N, Dangerous to the environment. Hazardous according to the criteria of SWA. Not a Dangerous Good according to the Australian Dangerous Goods (ADG) Code.

Risk Phrases R36, R58. Irritating to eyes. May cause long term adverse effects in the environment.

Safety Phrases S22, S26, S28, S36, S24/25. Do not breathe dust. In case of contact with eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre. After contact with skin, wash immediately with plenty of soap and water. Wear suitable protective clothing. Avoid contact with skin and eyes. SUSMP Classification: S6 ADG Classification: None allocated. Not a Dangerous Good under the ADG Code.

UN Number None allocated

Pictogram**Signal word** Warning**Hazard statement(s)**H320 Causes eye irritation
H413 May cause long lasting harmful effects to aquatic life**Precautionary statement(s)**P264 Wash contacted areas thoroughly after handling
P370+P378 In case of fire, use carbon dioxide, dry chemical, foam, water fog
P501 Dispose of contents/ container to an approved waste disposal plant**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Ingredients	CAS No	Conc.
Clopyralid, potassium salt	58509-83-4	750 g/kg
Other non-hazardous ingredients	secret	to 100

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

The SWA 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 may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated 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.

4. FIRST AID MEASURES

Consult the Poisons Information Centre (131126) 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.

Eye: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.



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- Skin:** Wash skin with plenty of water.
- Ingestion:** Call the Poisons Information Centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the Poisons Information Centre or doctor. Never give anything by mouth to an unconscious person.
- Inhalation:** Move person to fresh air; if effects occur, consult a physician.
- Note to Physician:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE-FIGHTING MEASURES

Fire & Explosion Hazards	May produce hydrogen chloride, chlorinated pyridines, oxides of nitrogen and oxides of carbon. Can react violently with aluminium above 110°C when water is present. Avoid contact with aluminium.
Fire-Fighting Equipment	Wear positive pressure self-contained breathing apparatus and full protective clothing.
HAZCHEM	2X
Flash Point	Not flammable (granule)
Combustible	Not combustible
Upper Flammability Limit	No data
Lower Flammability Limit	No data

6. ACCIDENTAL RELEASE MEASURES

Action to Take for Spills / Leaks: Do not touch or walk through spilled material. Wear gloves, overall and boots. Stop further spill occurring and prevent entry into waterways and drains.

Small spills: In case of spill on floor or paved surfaces sweep up and place in drums for disposal at a licensed local authority landfill. Spill residues may be cleaned using water and detergent. Contain and absorb wash water.

7. HANDLING AND STORAGE

Handling: Keep out of reach of children. Causes eye irritation. Avoid contact with eyes. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Storage: Store in tightly closed original container in a cool, dry well-ventilated area out of direct sunlight when not in use. Do not store with food, feedstuffs, fertilizers and seeds. See product label for further handling/storage precautions relative to the end use of this product. Reduce stacking height where local conditions can affect packaging strength.



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8. EXPOSURE CONTROLS/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**. **ASCC Exposure Limits TWA (mg/m3) STEL (mg/m3)**

Exposure limits have not been established by ASCC 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 2006.

Engineering Controls: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

Recommendations For Manufacturing, Commercial Blending & Packaging Workers:

Eye / Face Protection: Use chemical goggles. Eye wash fountain should be located in immediate work area.

Skin Protection: No precautions other than clean body-covering clothing should be needed. Use gloves chemically resistant to this material.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator. In dusty atmospheres, use an approved particulate respirator.

Applicators & Other Handlers: Refer to the product label for personal protective clothing and equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Description & colour	Off white granules
Odour	Odourless
Boiling Point	No applicable
Flashpoint	Does not ignite before melting, with decomposition, at 280-290°C
Bulk Density	0.72 g/mL (loose) 0.79 g/mL (compacted)
Explosive Properties	Not explosive
Oxidising Properties	Non-oxidizing
pH, 1% Aqueous dispersion	6.9
Vapour Pressure	133 mPa at 24°C (clopyralid acid)

10. STABILITY AND REACTIVITY

Stability: Decomposes in fire.

Incompatibility: (specific materials to avoid) Can react violently with aluminium above



110°C when water is present. Avoid contact with aluminium.

Hazardous Decomposition Products: Hydrogen chloride, nitrogen oxides under fire conditions. Chlorinated pyridines.

Hazardous Polymerisation: Not known to occur.

11. TOXICOLOGICAL INFORMATION

Potential Health Effects: This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

Eye: May cause slight eye irritation. May cause slight corneal injury.

Skin: Essentially non-irritating to skin. Prolonged skin contact is unlikely to result in absorption of harmful amounts. The LD50 for a similar material for skin absorption in rabbits is >2,000 mg/kg. Did not cause allergic skin reactions when tested in guinea pigs.

Ingestion: Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. The oral LD50 for a similar material for rats is >3,500 mg/kg.

Inhalation: No adverse effects are anticipated from single exposure to dust.

Systemic (Other Target Organ) Effects: For clopyralid, in animals, effects have been reported on the following organs: kidney and liver. Observations in animals include lethargy.

Cancer Information: Clopyralid did not cause cancer in laboratory animals.

Teratology (Birth Defects): For a similar material, did not cause birth defects or other effects in the foetus even at doses, which caused toxic effects in the mother.

Reproductive Effects: For a similar material, in animal studies, has been shown not to interfere with reproduction.

Mutagenicity: For a similar material, in-vitro and animal genetic toxicity studies were negative.

12. ECOLOGICAL INFORMATION

Environmental Data:

Movement & Partitioning: Highly mobile in soil. Bio-concentration potential is low (BCF <100 or Log Pow <3).

Degradation & Persistence: Moderate to medium persistence in soil. Biodegradation under aerobic laboratory conditions is below detectable limits (BOD20 or BOD28/ThOD <2.5%).

Ecotoxicity: Material is practically non-toxic to aquatic organisms on an acute basis (LC50 or EC50 is >100 mg/L in most sensitive species). Material is slightly toxic to birds on an acute basis (LC50 between 501 and 2000 mg/kg). Acute contact LD50 in honey bee (*Apis mellifera*) is >100 µg/bee. Acute oral LD50 in honey bee (*Apis mellifera*) is >100 µg/bee. The LC50 in earthworm (*Eisenia foetida*) is >1000 mg/kg.



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13. DISPOSAL CONSIDERATIONS

Disposal Method: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

ADG Code: This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

15. REGULATORY INFORMATION

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredient: Clopyralid, is mentioned in the SUSMP.

16. OTHER INFORMATION

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