

Rygel PacUp 250 Plant Growth Regulator

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY

Supplier: Rygel Australia Pty Ltd
ACN: 106 839 007
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Telephone: (03) 9768 2803
Facsimile: (03) 9768 2804
Emergency telephone number: National Poisons Information Centre: Phone Australia 13 11 26.

Product name: Rygel PacUp 250 Plant Growth Regulator
Substance: Paclobutrazol is an azole derived plant growth regulator.
Product Use: Plant growth regulator for use as described on the product label.

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients Name	CAS No.	Proportion
Paclobutrazol	76738-62-0	25
Other non-hazardous ingredients	secret	to 100

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

3. HAZARDS IDENTIFICATION

Hazard designation: Not classified as hazardous according to the criteria of NOHSC
ADG classification: Not classified as a Dangerous Good under the Australian Code for the Transport of Dangerous Goods by Road and Rail
SUSDP Classification: S5
Risk Phrases: Not Hazardous - No criteria found
Safety Phrases: Not Hazardous - No criteria found
Major Health Hazards: No significant risk factors have been found for this product

4. FIRST AID MEASURES

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 11 26 from anywhere in Australia 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: No specific health data is available for this product. If any unusual symptoms become evident, or if in doubt, contact a Poisons Information Centre or a doctor.

Eye Contact: 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.

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

5. FIRE-FIGHTING MEASURES

Fire and Explosion Hazards:

There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media:

Preferred extinguishing media are carbon dioxide, dry chemical, foam, water fog.

Fire Fighting:

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If a significant quantity of this product is involved in a fire, call the fire brigade.

Flash point: Not flammable
Upper Flammability Limit: No data
Lower Flammability Limit: No data
Auto-ignition temperature: No data
Flammability Class: No data

6. ACCIDENTAL RELEASE MEASURES

Accidental release: In the event of a major spill, prevent spillage from entering drains or watercourses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services.

Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this MSDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

7. HANDLING AND STORAGE

Handling: 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.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this class of poison. Make sure that containers of this product are kept tightly closed. Make sure that the product does not come into contact with substances listed under 'Materials to avoid' 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.

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**.

Exposure Limits TWA (mg/m3) STEL (mg/m3): Exposure limits have not been established by NOHSC for any of the significant ingredients in this product.

The ADI for Paclobutrazol is set at 0.01mg/kg/day. The corresponding NOEL is set at 1.4mg/kg/day (ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, Dec 2002).

Ventilation: 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.

Eye Protection: Eye protection is not normally necessary when this product is being used. However, if in doubt, wear suitable protective glasses or goggles.

Skin Protection: 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 handling this product.

Protective Material Types: There is no specific recommendation for any particular protective material type.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Description & colour:	White Suspension
Odour:	Mild odour
Boiling Point:	Approx 100°C at 100kPa
Freezing/Melting Point:	No specific data. Liquid at normal temperatures
Volatiles:	No data
Vapour Pressure:	18mm Hg at 20°C (water vapour pressure)
Vapour Density:	No data
Specific Gravity:	No data
Water Solubility:	Completely soluble
pH:	No data
Volatility:	No data
Coeff Oil/water distribution:	3.2 (log P octanol/water)

10. STABILITY AND REACTIVITY

Reactivity: 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.

Conditions to Avoid: This product should be kept in a cool place, preferably below 30°C.

Incompatibilities: strong acids, strong bases, strong oxidising agents.

Fire Decomposition: 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.

Polymerisation: This product is unlikely to undergo polymerisation processes.

11. TOXICOLOGICAL INFORMATION

Local Effects:

Target Organs: There is no data to hand indicating any particular target organs

Paclobutrazol: LD50 Oral, Rat 1300-2000mg/kg LD50 Oral, Mouse = 490-1200mg/kg

LD50 Oral, Guinea Pig = 400-600mg/kg LD50 Oral, Rabbit = 840-940mg/kg

LD50 Dermal, Rabbit = >1000mg/kg LC50 Inhalation, Rat = 3.13-4.79mg/L/4hr

12. ECOLOGICAL INFORMATION

This product is harmful to aquatic organisms.

Birds: LD50 mallard: >7,900mg/kg

Fish: LC50 rainbow trout: 27.8mg/L

Algae: EC50 180µmol/L

Bees: NOEL >0.002mg/bee (oral)

Daphnia: EC50 33.2mg/L

13. DISPOSAL CONSIDERATIONS

Disposal: Instructions concerning the disposal of this product and its containers are given on the product label. These should be carefully followed.

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.

U.N. Number None Allocated

Proper Shipping Name None Allocated

DG Class None Allocated

Hazchem Code None Allocated

Packing Group None Allocated

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15. REGULATORY INFORMATION

Poisons Schedule S5

Packaging & Labelling

CAUTION

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
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	Dandenong South, Vic 3175	Fax	61 3 9768 2804

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