

Section 1 - Identification of The Material and Supplier

Chemical nature:	Paclobutrazol is an azole plant growth regulator derivative
Trade Name:	PAC-DOWN Plant Growth Regulator
APVMA Code:	83404
Product Use:	For the suppression of Winter Grass (<i>Poa annua</i>) in turf and for growth control of container grown ornamentals
Supplier:	Amgrow Pty Ltd 3/29 Birnie Ave, Lidcombe NSW 2141 Phone: 02 9395 1200 (office hours), Fax: 02 9395 1241 www.amgrow.com.au
This Version Date:	July 2017 and is valid for 5 years from this date

Section 2 - Hazards Identification

Statement of Hazardous Nature

THIS PRODUCT IS CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA OF SWA.

NOT A DANGEROUS GOOD ACCORDING TO AUSTRALIAN DANGEROUS GOODS (ADG) CODE (See Section 14 for ATA OR IMDG/IMSB criteria)

SUSMP Classification: S5

ADG Classification: None allocated. Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA or IMDG/IMSB criteria.

UN Number: 3082



GHS Signal word: **WARNING**

Reproductive Toxicity Category 2

Eye Damage/Irritation Category 2B

Hazardous to the Aquatic Environment (Acute) Category 1

HAZARD STATEMENT:

H361: Suspected of damaging fertility or the unborn child

H320: Causes eye irritation.

H400: Very toxic to aquatic life.

PREVENTION

P201: Obtain special instructions before use

P202: Do not handle until all safety precautions have been read and understood

P264: Wash contacted areas thoroughly after handling.

P273: Avoid release to the environment.

P280: Wear protective clothing /eye protection

RESPONSE

P308+P313: IF exposed or concerned: Get medical advice/attention

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice.

P391: Collect spillage

STORAGE

P405: Store locked up

DISPOSAL

P501: Dispose of contents and containers as specified on the registered label.

Emergency Overview

Physical Description & Colour: White liquid suspension

Odour: Mild odour.

Major Health Hazards: No major health hazards if used according to directions

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Issued by: Amgrow Pty Ltd

Phone: 02 9395 1200 (office hours)

Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)

Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc.
Paclobutrazol	76738-62-0	250 g/L
Other non hazardous ingredients	n/a	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.

Section 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 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

Skin Contact: Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) until product is removed. Remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and seek medical attention.

Eye Contact: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

Section 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.

Decomposition Products: Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness.

Fire decomposition products from this product are likely to be irritating if inhaled.

Extinguishing Media: Not combustible. Use extinguishing media suited to burning materials. If water or fine water spray is used, ensure all run-off is contained.

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

Flash point: Does not burn.

Upper Flammability Limit: Does not burn.

Lower Flammability Limit: Does not burn.

Auto ignition temperature: Not applicable - does not burn.

Flammability Class: Does not burn.

Section 6 - Accidental Release Measures

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including eye/face protection. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. 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. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. 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 SDS and the label, instructions on the label prevail. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 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 SDS 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

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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 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 Controls and Personal Protection

Exposure Limits	TWA(mg/m ³)	STEL(mg/m ³)	ADI(mg/Kg/day)	NOEL(mg/Kg/day)
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Paclotrazol	not set	not set	0.01	1.4
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Exposure limits have not been set by SWA for any ingredients in product. 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. There is a blanket limit of 10mg/m³ for dusts or mists when limits have not otherwise been established. 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. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values from Australian ADI List, 31st March 2012

Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

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.

Ventilation: This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

Eye Protection: Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

Skin Protection: Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

Protective Material Types: We suggest that protective clothing be made from the following materials: PVC.

Respirator: Usually, no respirator is necessary when using this product.

Eyebaths or eyewash stations and safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	White liquid suspension
Odour:	Mild odour.
Boiling Point:	Approximately 100°C at 100kPa.
Freezing/Melting Point:	Approximately 0°C.
Volatiles:	Water component.
Vapour Pressure:	0.001kPa at 20°C
Specific Gravity:	approx 1.00 at 20°C
Water Solubility:	Forms suspension with water
pH:	No data.
Evaporation Rate:	As for water.
Auto ignition temp:	Not applicable - does not burn.

Section 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: Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

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

Fire Decomposition: Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness. On further heating may emit toxic fumes

Polymerisation: This product will not undergo polymerisation reactions.

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Section 11 - Toxicological Information

Acute Toxicity:

Oral LD50 (rat) >5000 mg/kg

Potential Health Effects

Inhalation: Available data indicates that this product is not harmful. However product may be irritating to mucous membranes and respiratory tract, although unlikely to cause anything more than mild transient discomfort.

Skin Contact: This product may be a skin irritant. Symptoms may become evident, but all should disappear once exposure has ceased.

Eye Contact: This product is an eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.

Ingestion: The concentrate is of low toxicity if swallowed. Significant oral exposure is considered to be unlikely.

Carcinogen Status:

SWA: No significant ingredient is classified as carcinogenic by SWA.

NTP: No significant ingredient is classified as carcinogenic by NTP.

IARC: No significant ingredient is classified as carcinogenic by IARC.

Section 12 - Ecological Information

No data is available on this product. The following data applies to the active ingredient Paclobutrazol only.

Effects on Aquatic Organisms: Moderate toxicity to fish: LC₅₀(96 hr) rainbow trout= 27.8 mg/L

LC₅₀(48 hr) *daphnia magna* = 33.2 mg/L

Toxic to aquatic organisms LC₅₀(48 hr) *lemna gibba* (duck weed) = 0.002 mg/L

Effects on Birds: Non toxic to birds: LD₅₀ >7900mg/kg

Effects on Other Animals (Nontarget species): Not toxic to bees.

Environmental Properties: Half life of Paclobutrazol in soil is typically 43-618 days with an average of 182 days

Section 13 - Disposal Considerations

Disposal: The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 <http://www.chemclear.com.au/> and for help with the disposal of empty drums, contact DrumMuster <http://www.drummuster.com.au/> where you will find contact details for your area.

Section 14 - Transport Information

ADG Code: This product is exempt from classification as a Dangerous Good in packs less than 3000 L for transport by road or rail.

IATA or IMDG/MSBC: Classified as a Dangerous Good for transport by sea or air

UN Number: 3082

DG Class: 9 (Miscellaneous Dangerous Goods)

Packing Group: III

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Paclobutrazol)

Hazchem Code: 3Z

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations.

The following ingredient: Paclobutrazol is mentioned in the SUSMP.

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Section 16 - Other Information

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

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail	IMDG	International Maritime Dangerous Good
AICS	Australian Inventory of Chemical Substances	IMSBC	International Maritime Solid Bulk Code
CAS number	Chemical Abstracts Service Registry Number	NTP	National Toxicology Program (USA)
Hazchem Number	Emergency action code of numbers and letters that provide information to emergency services especially fire-fighters	SUSMP	Standard for the Uniform Scheduling of Medicines & Poisons
IARC	International Agency for Research on Cancer	SWA	Safe Work Australia (formerly ASCC and NOHSC)
IATA	International Air Transport Authority	UN Number	United Nations Number

*THIS SDS 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 MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.
IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS
OUR 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.*

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (December 2011)
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