

## 1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

### Product Identifiers

Product Name: Paclobotrazol  
Product Number: P687

### Other means of identification

**Synonyms:** 1-tert-butyl-2-(P-chlorobenzyl)-2-(1,2,4-Triazol-1-yl)Ethanol

**Recommended Use** For Research/Laboratory Use ONLY

**Restrictions on Use** Products manufactured by PhytoTechnology Laboratories and supplied by Austratec Pty Ltd are intended for research and laboratory use ONLY. Products are NOT to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, or as household chemicals.

### Details of Importer/Supplier

Company: Austratec Pty Ltd, Factory 12/49 Corporate Blvd, Bayswater VIC 3153, AUSTRALIA  
Telephone: +61 3 9729 4528  
Fax: +61 3 9729 4578  
Website: www.austratec.com.au

**Emergency phone number** 13 11 26 (24 hour – Poisons Information Centre)

## 2. HAZARD(S) IDENTIFICATION

**GHS Classification** Flammable solids (Category 1)  
Acute toxicity, Oral (Category 4)  
Acute toxicity, Dermal (Category 4)

### GHS Label elements, including precautionary statements

Pictogram:  Signal Word: **DANGER**

**Hazard Statement(s)** H228 – Flammable solid.  
H302 - Harmful if swallowed  
H312 – Harmful in contact with skin

### Precautionary statement(s)

Prevention: P210 – Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P264 – Wash hands thoroughly after handling.  
P270 – Do not eat, drink or smoke when using this product.  
P272 – Contaminated clothing should not be allowed out of the workplace.  
P280 – Wear protective gloves/protective clothing/eye protection.

Response: P301 + P312 – IF SWALLOWED: Call a POSISON CENTRE or doctor/physician if you feel unwell  
P302 + P352 – IF ON SKIN: Wash with plenty of soap and water  
P312 – Call a POISON CENTRE or doctor/physician if you feel unwell.  
P330 – Rinse mouth  
P363 – Wash contaminated clothing before reuse.  
P370 + P378 – In case of fire: use dry sand/water for extinction.

Storage: None.

Disposal: P501 - Dispose of contents/container to an approved chemical waste disposal plant.

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### 3. COMPOSITION AND INFORMATION ON INGREDIENTS

CAS Number: 76738-62-0 EC Number: None  
Formula: C<sub>12</sub>H<sub>20</sub>ClN<sub>3</sub>O Molecular Weight: 293.80 g/mol

INGREDIENT	CAS NUMBER	PERCENTAGE	HAZARDOUS
Paclobutrazol	76738-62-0	>95%	No exposure limits established by OSHA or ACGIH

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### 4. FIRST AID MEASURES

#### Description of first aid measures

General advice: Consult a doctor/physician. Show this safety data sheet to the doctor in attendance.

Ingestion: MAY CAUSE IRRITATION IF SWALLOWED. If swallowed, wash mouth out with water. Never give anything by mouth to an unconscious person. Seek medical attention.

Inhalation: MAY CAUSE IRRITATION TO RESPIRATORY TRACT. Safely remove person to fresh air. If not breathing, begin cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. Seek medical attention.

Eye contact: DIRECT CONTACT MAY CAUSE IRRITATION, REDNESS, TEARING, OR BLURRED VISION. Flush eye out immediately with water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical attention if irritation persists.

Skin contact: MAY CAUSE IRRITATION, REDDENING, ITCHING OR INFLAMATION. Wash area thoroughly with soap and water. Remove and wash contaminated clothing. Seek medical attention.

#### Most important symptoms and effects, both acute and delayed

See section 2 and/or section 11

#### Recommendation for immediate medical attention and special treatment needed

No data available

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### 5. FIRE FIGHTING MEASURES

**Suitable extinguishing media** Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.

#### Specific hazards arising from the chemical

Hazardous combustion products: May emit toxic fumes under fire conditions.

Toxic gases produced: Carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen chloride gas.

**Special protective equipment and precaution for firefighters** In the event of fire, wear full protective clothing and NIOSH (US) or EN145 (EU) approved self contained breathing apparatus. Evacuate the area and fight fire from a safe distance.

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## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment and emergency procedures</b>	Use personal protection equipment (PPE) recommended in Section 8. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation especially in confined areas. Evacuate personnel to safe areas. Avoid breathing dust.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
<b>Methods and materials for containment and cleanup</b>	Wear suitable protective clothing. Avoid dust formation. Carefully sweep up and remove. Place in a dry container and cover. Remove from area for safe disposal (see section 13).

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## 7. HANDLING AND STORAGE

<b>Precautions for safe handling</b>	Avoid contact with skin and eyes. Avoid dust formation and aerosols. Avoid incompatible substances. Provide appropriate exhaust ventilation where dust is formed. Wash thoroughly after use.
<b>Conditions for safe storage</b>	Keep in a tightly closed container and store in a cool, dry and well ventilated area. Protect from air, light and moisture.
<b>Recommended Storage Temperature</b>	Room Temperature.
<b>Incompatibilities</b>	Strong oxidizing agent.

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## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Exposure control measures

Australian Exposure Standards (TWA;STEL):	No data available
OSHA's permissible exposure limits (PEL's):	No data available
ACGIH threshold limit values (TLV's):	No data available

### Engineering controls

Handle in accordance to general industrial hygiene and chemical safety practice.

### Personal protective equipment (PPE)

Eye Face Protection:	Chemical safety shield, glasses or goggles approved under NIOSH (US) or EN166 (EU). Have eye washing facilities readily available where eye contact can occur.
Skin Protection:	Suitable protective gloves.
Body Protection:	Lab coat or protective chemical suit. Protective equipment must be selected in accordance to the amount of dangerous substance within the specific workplace.
Respiratory Protection:	Use an appropriate dust mask. Use N95 (US) or type P1 (EN143) dust mask where dust level is a nuisance. Appropriate respirator approved under NIOSH (US) or CEN (EU).

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	White to off-white powder
<b>Odour</b>	Odorless
<b>Odour threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting point</b>	165 – 166 °C

Product No. P687

<b>Initial boiling point/boiling range</b>	No data available
<b>Flash point (closed cup)</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Flammable limits (upper %)</b>	No data available
<b>Flammable limits (lower %)</b>	No data available
<b>Vapour pressure</b>	No data available
<b>Vapour density</b>	No data available
<b>Relative density</b>	No data available
<b>Solubility</b>	Slightly soluble in water, soluble in DMSO
<b>Partition coefficient (n-octanol/water)</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Viscosity</b>	No data available

#### 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	No data available.
<b>Chemical stability</b>	Stable under normal conditions of use.
<b>Possibility of hazardous reactions</b>	Will not occur
<b>Conditions to avoid</b>	Moist air, light, extreme heat
<b>Incompatible materials</b>	Strong oxidizing agents, strong bases,
<b>Hazardous decomposition products</b>	Carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen chloride gas.

#### 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity</b>	LD <sub>50</sub> (Oral, Rat)(mg/Kg):	1300
	LD <sub>50</sub> (Inhalation, Rat)(mg/Kg):	369,000
	LD <sub>50</sub> (Dermal, Rabbit)(mg/Kg):	>1000
<b>Skin corrosion/irritation</b>	No data available	
<b>Serious eye damage/irritation</b>	No data available	
<b>Respiratory or skin sensitisation</b>	No data available	
<b>Germ cell mutagenicity</b>	No data available	
<b>Carcinogenicity</b>	NTP:	No
	IARC:	No
	Z List:	No
	OSHA Reg:	No
<b>Reproductive toxicity</b>	No data available	

<b>Specific target organ toxicity (STOT)</b>	Single Exposure: No data available Repeated Exposure: No data available
<b>Aspiration hazard</b>	No data available
<b>Target organs</b>	Liver, kidney
<b>Medical conditions aggravated by exposure</b>	None identified
<b>Routes of entry</b>	Inhalation, ingestion, eye and skin contact
<b>Symptoms associated with overexposure</b>	Irritation, itching, gastrointestinal upset, nausea, vomiting, headache, possible liver or kidney impairment, central nervous system depression.
<b>NIOSH/RTECS No.</b>	XZ4803300

**The toxicological properties of this product have not been thoroughly investigated.**

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## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Toxicity to fish. LC50 – Onchorhynchus mykiss (rainbow trout) – 27.8 mg/L – 96 hr. Toxicity to daphnia. LC50 – Daphnia (water flea) – 28.7 mg/L – 48 hr.
<b>Persistence and degradability</b>	No data available
<b>Bioaccumulative potential</b>	No data available
<b>Mobility in soil</b>	No data available
<b>Other adverse effects</b>	Harmful to aquatic life

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## 13. DISPOSAL CONSIDERATIONS

<b>Disposal procedure</b>	Dispose in accordance with all applicable government, state, and environmental chemical safety practices.
<b>EPA hazardous waste number</b>	No data available

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## 14. TRANSPORT INFORMATION

<b>UN number</b>	ADG: 1325 IMDG: 1325 IATA: 1325
<b>Proper shipping/technical name</b>	Flammable Solids, Organic, N.O.S (Paclobutrazol)
<b>Hazard Class</b>	4.1
<b>Packing group</b>	II
<b>Environmental hazards</b>	No data available
<b>Special precautions</b>	No data available
<b>Hazchem</b>	Yes

## 15. REGULATORY INFORMATION

### Notification Status

Australia (AICS):	No
New Zealand (NZIoC):	Not determined
USA (TSCA):	No
SARA TITLE III:	Section 302 (EHS) Ingredients: No
	Section 313 Ingredients: No
	Section 304 (EHS/CERCLA) Ingredients: No
	Section 311/312 Hazard: Fire hazard, Acute health hazard

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## 16. OTHER INFORMATION

HMIS Rating:	Health Hazard	Chronic Health Hazard	Flammability	Physical Hazard
	1		3	3
NFPA Rating:	Health Hazard	Fire Hazard	Reactivity Hazard	Special Hazard
	1	3	3	

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