

MATERIAL SAFETY DATA SHEET

1. Identification of the substance/preparation and company/undertaking

Preparation name: PIROUETTE
Use of preparation: Horticultural plant growth regulator for professional use
Supplier: Fine Agrochemicals Ltd, Hill End House, Whittington
Worcester, WR5 2RQ, Tel: +44 01905 361800

2. Composition/Information On Ingredients:

Product: An aqueous suspension of paclobutrazol
Cas No: 77-06-5 (active ingredient)
Einecs No: 201-001-0 (active ingredient)
Hazardous Ingredients: **Classification:** **Concentration:**
Paclobutrazol Xn, N, R20/22 R36 R51/53 4 g/l

3. Hazards identification

None

4. First aid measures

After inhalation: Remove patient from exposure, keep warm and at rest. Obtain medical attention as a precaution.
After skin contact: Immediately take off all contaminated clothing. Wash skin immediately with water, followed by soap and water. Such immediate action is essential to minimise skin contact. If unwell, seek medical attention. Contaminated clothing must be thoroughly washed before re-use.
After eye contact: Irrigate eyes with running water for at least 15 minutes. Obtain Immediate medical attention.



4. **First aid measures (cont'd.)**

After swallowing: If swallowed, seek medical advice immediately, and show the container label, or this data sheet. Do not induce vomiting.

5. **Fire fighting measures**

Flammability: Non-flammable.

Extinguishing Media: For small fires use foam, carbon dioxide, halon or dry powder extinguishers. For large fires use foam or water-fog; avoid the use of water jets. Keep fire exposed containers cool by spraying with water.

Fire Fighting Equipment: Wear full protective clothing and self-contained breathing apparatus.

Special exposure hazards: Water used for extinguishing must be retained and not allowed to contaminate water courses.

Products of combustion and decomposition: Carbon oxides and aldehydes. May evolve hazardous fumes.

6. **Accidental release measures**

Personal Precautions
Wear full protective clothing, see Section 8. Exposure control/personal protection

Environmental precautions
Prevent contaminated water entering drains. Spillages or uncontrolled discharges into water courses or sewers must be alerted to the appropriate authority.

Methods for cleaning up
Isolate spilled material for safe disposal, using suitable absorbent media, and collect in sealable polylined containers. Clean contaminated area with water and dispose of waste-water safely.



7. Handling and storage

Handling

Keep away from drink and foodstuffs. Do not smoke in the workplace. Avoid contact with spray. Wash thoroughly after handling. Do not use on food crops.

Storage

Store in cool dry conditions in original well marked containers.

8. Exposure controls/personal protection

Exposure controls

To avoid risks to man and the environment comply with instructions for use. Also see Section 15. Regulatory Information.

Occupational exposure controls

- Respiratory protection

Work in well ventilated areas.

- Hand protection

Acid resistant gloves with a minimum 0.5mm thickness should be worn with sleeves worn over the top of the gloves.

- Eye protection

Glasses/goggles should be worn or face mask used.

- Skin protection

Wear sensible regularly laundered overalls.

9. Physical and chemical properties:

General information

Appearance: Brown liquid

Odour: None

Important health, safety and environmental information

pH (1% solution): 6.5

Boiling Point: 100°C

Flash point: Does not flash



9. Physical and chemical properties (cont'd.)

Flammability:	Non-flammable
Explosive properties:	Non-explosive
Oxidising properties:	Not oxidising
Vapour pressure:	No data
Relative density (D ²⁰ ₄):	1.02
Solubility	
- water solubility @ 20°C:	Forms stable suspension
- solvent solubility:	Active ingredient is soluble in methanol and acetones
Partition coefficient:	No data
Viscosity:	66 mm ² /s @ 20°C
Vapour density:	No data
Evaporation rate:	No data

10. Stability and reactivity

Stable in original containers for at least 3 years at ambient temperatures.

Conditions to avoid

- Excessive heat. Thermal decomposition will evolve toxic and irritant vapours.

Materials to avoid

- Incompatible with strong oxidising agents.

Hazardous decomposition products

- None under normal conditions of storage and use.

11. Toxicological information

Acute toxicity

Oral:	LD ₅₀ rat (4h) > 2,000 mg/kg
Inhalation:	LC ₅₀ rat > 2.55 mg/kg
Dermal:	LD ₅₀ rat (24h) >2,000 mg/kg

Irritation

Eye:	Non-irritant
Skin:	Non-irritant
Respiratory tract:	No data



11. Toxicological information (cont'd.)

Sensitisation
Skin: Non-sensitising

Carcinogenicity: Not carcinogenic
Mutagenicity: Not mutagenic
Reproductive tox: No data
Chronic tox: No data

Toxicity Class: WHO (a.i.) U; EPA III.

12. Ecological information

Ecotoxicity (active ingredient)

Fish: LC₅₀ (96h) 27.8 mg/l for rainbow trout
Daphnia: LC₅₀(48h) 33.2 mg/l
Algae: EC₅₀ for chlorella 180 µmol/l
Bird: LC₅₀ >7900 mg/kg diet for mallard ducks
Bee: Acute oral NOEL>0.002 mg/bee; Acute percutaneous>0.04 mg/bee
Beneficial sps: No data

Persistence and degradability
Half life of active ingredient is between 0.5-1.0 years in general, <42d in calcareous clay, <140 d in coarse, sandy loam.

13. Disposal considerations

Product
May be taken to waste disposal site or incineration plant when in compliance with local regulations refer to the local waste regulation authority.

Packaging
Empty containers can be landfilled when in accordance with local regulation.

14. Transport information

UN number: Not classified
Class: Not classified



14. Transport information (cont'd.)

Proper shipping name: Not classified
Packaging group: Not classified
Marine Pollutant: Not classified
Other applicable information: None

15. Regulatory Information

Symbol(s): None
Risk Phrases: None
Safety Phrases: S2 Keep locked up and out of reach of children
S13 Keep away from food, drink & animal feed stuffs
S20/21 When using do not eat, drink or smoke
S26/28 Wash substance from skin or eyes immediately
S36/37 Wear suitable protective clothing and gloves
S49 Keep in original container
Specific provisions: Restricted to professional users
To avoid risks to man and the environment, comply with the directions for use.

16. Other information:

For further information on the product and product use refer to the product label.

This version replaces all previous versions.

