

Zhejiang Tide CropScience Co., Ltd

MATERIAL SAFETY DATA SHEET

PACLOBUTRAZOL 240g/L SC

Revision Date: 06.24.2006



SN: TIC-PGR005003

Material Safety Data sheet (MSDS)

1. Product and Company Identification

Product name: PACLOBUTRAZOL 2 SC
Chemical Family: A triazole Plant Growth Regulator
Manufacturer: Zhejiang Tide CropScience Co., Ltd.
Telephone: 86-571-85270564, 85270003, 85270004
Tele-fax: 86-571-85270005, 28953533
Email: Info@tide-china.com

2. Composition /Information on Ingredients

Active Ingredient	CAS number	w/w (%)
PACLOBUTRAZOL TECHNICAL	76738-62-0	24.0
Inert Ingredient		
PROPYLENA GLYCOL	N/A	N/A

3. Hazards Identification

Symptoms of Acute exposure: May cause mild eye irritation.

Hazardous Decomposition Products: Can decompose at high temperatures forming toxic gases.

Unusual Fire Explosion: This product will burn with flames if ignited. This product has a minimum ignition energy between 100 and 300millijoules. Mechanical sparks, open flames, and certain hot surfaces can serve as ignition sources for this material. Eliminate the presence of mechanical sparks and other ignition sources where dust clouds

Zhejiang Tide CropScience Co., Ltd

MATERIAL SAFETY DATA SHEET

PACLOBUTRAZOL 240g/L SC

Revision Date: 06.24.2006

SN: TIC-PGR005003



of the material could form. During a fire irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

4. First Aid Measures

If poisoning occurs, immediately contact a doctor or Poisons Information Centre, and follow the advice given. Show this Material Safety Data Sheet to the doctor.

- If swallowed:** Call a poison control center 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 poison control center or doctor. Do not give anything by mouth to an unconscious person.
- If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- If inhaled:** Move person to fresh air. If person is not breathing, call an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advices.
- Note to physician:** There is no specific antidote, treatment symptomatically.

5. Fire Fighting Measures

Fire and explosion

- Flash Point:** Does not flash.
- Flammable Limits (% in Air):** N/A
- Autoginition Temperature:** N/A.
- Extinguishing Media:** Foam, Dry chemical, and CO₂.
- Fire Fighting Instructions:** Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion Prevent use of contaminated

Zhejiang Tide CropScience Co., Ltd

MATERIAL SAFETY DATA SHEET

PACLOBUTRAZOL 240g/L SC

Revision Date: 06.24.2006

SN: TIC-PGR005003



buildings, area, and equipment until decontaminated.
Dike and collect water used to fight fire to prevent environmental damage due to run off.

Fire fighting equipment: Full fire fighting turn-out gear.

Hazardous combustion products: Unknown.

6. Accidental Release Measures

Clean up spills immediately. Keep unnecessary and unprotected personnel from entering.

In case of spill or leak: Control the spill at its source. Contain the prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Scrub area with hard water detergent. Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned in a disposal containers, seal container and arrange for disposition.

7. Handling and Storage

This product is not considered electrically conductive at low relative humidity.

Handling

Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling. Wash clothing after use.

Do not store or consume food or drink, or use tobacco, in areas where they may become contaminated with this material.

USERS SHOULD: Wash hands before eating, drinking, chewing, gum, using tobacco or using the toilet.

Storage

Store the product in a well-ventilated, secure area out of reach of children and domestic animals.

Cosmetic application in areas where there is a potential for exposure to the material. Do not contaminate water, other pesticides, fertilizer, food or feed in storage.

8. Exposure Controls/Personal Protection

Occupational exposure limits:

8hr TWA 5mg/m³

If needed, use local exhaust to keep exposures to a minimum.

Zhejiang Tide CropScience Co., Ltd

MATERIAL SAFETY DATA SHEET

PACLOBUTRAZOL 240g/L SC

Revision Date: 06.24.2006

SN: TIC-PGR005003



Eye protection:	Chemical tight goggles; full face shield in addition of splashing is possible.
Skin protection:	Wear impervious gloves when handling.
Body protection:	Depending on conditions of use, additional protection may be required such as an apron, arm covers, or full body suit.
Respiratory protection:	Use MSHA-NIOSH approved respirator for pesticides.

9. Physical and Chemical Properties

Form:	Suspensible liquid
Colour:	Off-white
Odour:	Not determined.
Melting point:	N/A.
Specific Gravity:	1.09 ± 0.02 g/cm ³ 20 °C.
Solubility in water:	26mg/l at 20 °C (on the basis of Paclobutrazol Technical).
Vapor Pressure:	7.5 × 10 ⁻⁹ mmHg at 20 °C (on the basis of Paclobutrazol Technical).

10. Stability and Reactivity

Stability	Stable under normal use and storage conditions.
Incompatibility with Other Materials:	Oxidizing agents..
Hazardous Polymerization:	Will not occur.
Hazardous decomposition products:	Can decompose at high temperature forming toxic gases.

11. Toxicological Information (Based on active ingredient)

Acute toxicity:	
Acute oral (rats) LD₅₀:	5,000mg/kg
Acute dermal (rabbits) LD₅₀:	>5,050mg/kg
Acute inhalation (Rats): LC₅₀:	>2.40mg/L
Acute eye irritation (rabbits):	Minimally irritating, Toxicity category IV
Acute dermal irritation (rabbits):	Toxicity category IV
Skin sensitization (mice):	Is not considered a sensitizer, index of <3 in all groups of test animals.

Zhejiang Tide CropScience Co., Ltd

MATERIAL SAFETY DATA SHEET

PACLOBUTRAZOL 240g/L SC



Revision Date: 06.24.2006

SN: TIC-PGR005003

Reproductive/Developmental Effects:

Paclobutrazol Technical: Dose-related increase in minor skeletal defects and evidence of fetotoxicity in rat studies (urogenital defects). No adverse effects seen on reproductive parameters or reproductive organs in a 2-generation rat study. Liver effects were noted at the highest doses level in the FO females and male and female offspring.

Chronic/Subchronic Toxicity Studies:

Paclobutrazol Technical: Evidence of liver toxicity in repeat dose rodent studies at high dose levels. (1250 ppm, 90 day and 2-year tests). No effects noted in rabbit studies. Non-genotoxic in a range of *in vitro* and *in vivo* short-term tests. No medication that Paclobutrazol is an endocrine disruptor.

Carcinogenicity

Paclobutrazol Technical: No evidence of carcinogenicity in 2-year rodent studies.

Toxicity of Other Components

Propylene Glycol: Test results reported in Section II for the final product take into account any acute hazards related to the Propylene Glycol in the formulation. Reported to cause central nervous system depression (anesthesia, dizziness, confusion), headache and nausea. Chronic dietary exposure caused kidney and liver injury in experimental animals.

Target Organs

Active Ingredient
Paclobutrazol Technical: Liver
Inert Ingredient
Propylene Glycol: CNS, kidney, liver.

12. Ecological Information

ECO-ACUTE TOXICITY:

Paclobutrazol Technical:
LC50 (96 h): 27.8 mg/l for rainbow trout;
23.6 mg/l for Bluegill sunfish:

Zhejiang Tide CropScience Co., Ltd

MATERIAL SAFETY DATA SHEET

PACLOBUTRAZOL 240g/L SC

Revision Date: 06.24.2006

SN: TIC-PGR005003



ECO-CHROC TOXICITY:

Paclobutrazol Technical: N/A.

SUMMARY OF EFFECTS:

Paclobutrazol Technical: Practically non-toxic to birds and bees. Slight toxic to fish and invertebrates.

13. Disposal Considerations

Dispose of product containers, water containers, and residues according to local regulations.

Waste Disposal:

Do not contaminate water supply, food or feed by storage or disposal.

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal:

Do not reuse product container. Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. Transport Information

B/L Freight Classification

Plant Growth Inhibitor, Modifier, or Regulator.

15. Regulatory Information

EPCRA SARA Title III Classification:

Hazard Classes: Acute Health Hazard

Toxic Chemical: N/A.

TSCA Status:

Exempt from TSCA, subject to FIFRA.

16. Other Information

Zhejiang Tide CropScience Co., Ltd

MATERIAL SAFETY DATA SHEET

PACLOBUTRAZOL 240g/L SC



Revision Date: 06.24.2006

SN: TIC-PGR005003

Please contact us through mail to the followed mailbox for any other questions:

Info@tide-china.com, Resdept@tide-china.com

DISCLAIMER

This information is based on our present state of knowledge. It should not therefore be construed as guaranteeing specific properties of the products described or their suitability for a particular application.

This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended.