



MATERIAL SAFETY DATA SHEET

Rainbow Treecare Scientific Advancements
2239 Edgewood Ave S
St. Louis Park, MN 55426

In Case of Emergency, Call
CHEMTREC at
1-800-424-9300

1. PRODUCT IDENTIFICATION

Product Name: **CAMBISTAT 2SC** Product No.: **200-3** (A8164B)
EPA Signal Word: **Caution** EPA Reg. No. 100-1014-74779
Active Ingredient (%): **Paclobutrazol Technical (22.94%)** CAS No.: 76738-62-0
Chemical Name: **(R*,R*)-beta-[(4-chlorophenyl)methyl]-alpha(1,1-dimethylethyl)-1H-1,2,4-triazole-1-ethanol**
Chemical Class: **A triazole plant growth regulator.**
EPA Registration Number(s): **100-1014-74779** Section(s) Revised: **1, 3, 4, 5, 6, 7, 8, 10, 13**

2. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Propylene Glycol	Not Established	Not Established	50 ppm TWA AIHA WEEL ****	No
Paclobutrazol Technical (22.94%)	Not Established	Not Established	5 mg/m ³ 8-hr TWA *	No

* Recommended by manufacturer

**** Recommended by AIHA (American Industrial Hygiene Association)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

3. HAZARDS IDENTIFICATION

Symptoms of Acute Exposure

May cause mild eye irritation.

Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases.

Physical Properties

Appearance: Off-white/buff/beige liquid

Odor: Not available

Unusual Fire, Explosion and Reactivity Hazards

This product will burn with flames if ignited. This product has a minimum ignition energy between 100 and 300 millijoules. 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 of this material could form.

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

4. FIRST AID MEASURES

Have the product container, label or Material Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

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- Ingestion: If swallowed: Call a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- Skin Contact: 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.
- Inhalation: If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Notes to Physician

There is no specific antidote if this product is ingested.

Treat symptomatically.

Medical Condition Likely to be Aggravated by Exposure

None known

5. FIRE FIGHTING MEASURES

Fire and Explosion

Flash Point (Test Method):	Does not flash	
Flammable Limits (% in Air):	Upper: % Not Applicable	Lower: % Not Applicable
Auto ignition Temperature:	Not Available	
Flammability:	Not Applicable	

Unusual Fire, Explosion and Reactivity Hazards

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This product has a minimum ignition energy between 100 and 300 millijoules. 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 of this material could form.

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

In Case of Fire

Use dry chemical, foam or CO₂ extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent it from spreading, contaminating soil, or entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy Spic and Span). Pick up wash liquid with additional absorbent

and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

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

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THE PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL

- Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.
- Eye Contact: Where eye contact is likely, use chemical splash goggles.
- Skin Contact: Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.
- Inhalation: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH approved respirator with any N, R, P or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Off-white/buff/beige liquid
Odor:	Not determined
Boiling Point:	212°F
Specific Gravity/Density:	1.09 g/mL
pH:	Not available

Solubility in H₂O

Paclobutrazol Technical: 26mg/L @ 68°F (20°C)

Vapor Pressure

Paclobutrazol Technical: 7.5 x 10⁻⁹ mmHg @ 68°F (20°C)

10. STABILITY AND REACTIVITY

Stability:	Stable under standard conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	None known.
Materials to Avoid:	Oxidizing agents.
Hazardous Decomposition Products:	Can decompose at high temperatures forming toxic gases.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Ingestion:	<u>Slightly Toxic</u> Oral (LD50 Rat) :	> 2,000 mg/kg body weight
Dermal:	<u>Practically Non-Toxic</u> Dermal (LD50 Rat) :	> 4,000 mg/kg body weight
Inhalation:	<u>Vapors unlikely</u> Inhalation (LC50 Rat) :	>250mg/M ³ for 4 hours
Eye Contact:	Slightly Irritating (Rabbit)	
Skin Contact:	Non-Irritating (Rabbit)	
Skin Sensitization:	Not a skin sensitizer in animal tests.	

Neurotoxicity

Paclobutrazol Technical: Negative.

Reproductive 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-generational rat study. Liver effects were noted at the highest dose 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.

Carcinogenicity

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

Other Toxicity Information:

None

Toxicity of Other Components

Propylene Glycol

Test results reported in Section 11 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 Ingredients

Paclobutrazol Technical: Liver

Inert Ingredients

Propylene Glycol: CNS, kidney, liver

12. ECOLOGICAL INFORMATION

Summary of Effects

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

Eco-Acute Toxicity

Paclobutrazol Technical: Bees LC50/EC50 > 50ug/bee
Invertebrates (Water Flea) LC50/EC50 33.2 ppm
Fish (Trout) LC50/EC50 27.8 ppm
Fish (Bluegill) LC50/EC50 23.6 ppm
Birds (8-day dietary – Bobwhite Quail) LC50/EC50 > 20,000 ppm
Birds (8-day dietary – Mallard Duck) LC50/EC50 > 20,000 ppm

Eco-Chronic Toxicity

Paclobutrazol Technical: Not Available

Environmental Fate

Paclobutrazol Technical:

The information presented here is for the active ingredient, paclobutrazol.

Soil/Environment: Soil DT50 0.5-1.0 y in general; in calcareous clay loam (pH 8.8, 14% o.m.), DT50 <42 D; in coarse sandy loam (pH 6.8, 4% o.m., DT50 >140 d).

Stable in water. Mixes in water (after 24 h).

13. DISPOSAL CONSIDERATIONS

Disposal

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport – NAFTA

Not regulated

B/L Freight Classification

Plant Growth Inhibitor, Modifier, or Regulator

Comments

None

15. REGULATORY INFORMATION

EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Not Applicable

California Proposition 65

Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)

None

RCRA Hazardous Waste Classification (40 CFR 261)

Not Applicable

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TSCA Status

Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 1
Flammability: 1
Instability: 0

HMIS Hazard Ratings

Health: 1
Flammability: 1
Reactivity: 0

0 Minimal
1 Slight
2 Moderate
3 Serious
4 Extreme

For non-emergency questions about this product call: 1-877-ARBORIS(T)

Original Issued Date: 04/28/2000

Revision Date: 03/06/2007

Replaces: 01/22/2002

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

RSVP# : (SCP-955-0304B)

End of MSDS