Material Safety Data Sheet (MSDS)

Date 03/07/2007

Section 1: Chemical Product and Company Identification:

Product: SHORTSTOP®

Product Use: A triazole Plant Growth Regulator

Company Greenleaf Chemical LLC

2352 Schaeffer Hills Drive

Henderson, Nevada 89052, U.S.A.

Emergency phone: Medical 1-800-327-8633(1-800-FASTMED)

Chemtrec: 1-800-424-9300

Section 2-Composition/Information on Ingredients:

Active Ingredient	CAS number	w/w (%)
PACLOBUTRAZOL TECHNICAL	76738-62-0	22.3
Inert Ingredients, Total, Including		77.7

PROPYLENE GLYCOL 57-55-6 CLAY AND PROPRIETARY INGREDIENTS

Section 3-Hazards Identification:

Low toxicity under normal conditions of handling and use.

Section 4-First Aid Measures:

If in Eyes: Immediately irrigate with eyewash solution or clean water, holding the eyelids apart. For at least 15 minutes. Obtain immediate medical attention

If on Skin: Take off immediately all contaminated clothing. Wash skin immediately with water followed by soap and water. Such action is essential to minimize contact with skin. Contaminated clothing should be laundered before re-use.

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

If Inhaled: Remove patient from exposure, keep warm and at rest. Obtain medical attention as a precaution.

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Section 5-Fire Fighting Measures:

Extinguishing media: For small fires, use foam, carbon dioxide, halon or dry powder extinguishant. For large fires, use foam or water-fog. Avoid use of water jet. Contain run-off water with, for example, temporary earth barriers.

Protective equipment: A self-contained breathing apparatus and suitable protective clothing must be worn in fire conditions.

Section 6- Accidental Release Measures:

Wear suitable personal protection during removal of spillages. This means eye protection, chemically resistant gloves, boots and coveralls. Absorb spillage onto sand, soil, or any other suitable absorbent material. Transfer to a container for disposal. Wash spillage area with water. Washings must be prevented from entering surface water drains. Large spills should be handled according to a spill plan. Otherwise, in case of emergency call day or night, 1-800-424-9300, Chemtrec.

Section 7- Handling and Storage:

Safe Handling Advice: Avoid contact with skin and eyes. When using, do not eat, drink or smoke. Wash face and hands before eating, drinking or smoking.

Requirements for Storage Rooms: Keep in original containers, tightly closed, out of reach of children. Keep away from food, drink and animal feeding stuffs. Protect from frost. Do not store near food or within the reach of children.

Additional Information: Read the label before use.

Section 8-Exposure Controls/Personal Protections:

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 gloves (such as nitrile or butyl) coveralls, socks and chemical resistant footwear.. For overhead exposure, wear chemical-resistant headgear.

Inhalation: A respirator is not normally required when handling this product. In case of emergency spills, use a NIOSH approved respirator with any N, R, P or HE filter.

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Section 9-Physical and Chemical Properties:

Form: Opaque Liquid
Color: Beige or off-white
Boiling Point: Approx. 212° F

Density: 1.08 +,- 0.02 grams/cubic cm at 20°C

Solubility: Miscible

Flash Point (0°C): Does not Flash
Explosive Properties (0°C): Not Applicable
Oxidizing Properties (0°C): Not Applicable

Section 10-Stability and Reactivity:

Stability: Stable for more than 2 years under normal use and storage conditions. Stable

to hydrolysis (pH 4-9) and not degraded by UV light.

Incompatibility: Oxidizing agents.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: Combustion or thermal decomposition will evolve toxic

and irritant vapors.

Section 11- Toxicological Information (Based on Active Ingredient):

Acute Toxicity:

Acute oral (rats) LD₅₀: >5,000 mg/Kg

Acute dermal (rabbits) LD_{50} : > 5,050 mg/Kg Acute inhalation (Rats): LC_{50} : >2.40 mg/L Acute eye irritation (rabbits): Non-Irritant Acute dermal irritation (rabbits): Non-Irritant

Skin sensitization (mice): Is not considered a sensitizer, with an index of < 3 in all groups of

test animals

Section 12- Ecological Information (Based on Active Ingredient):

Ecotoxicity; Toxicity to fish: LC ₅₀ Rainbow trout: 27.8 mg/L

Bluegill sunfish: 23.6 mg/L Daphnia magna: 33.2 mg/L

Unlikely to be hazardous to aquatic life

Avian dietary toxicity: LC₅₀ Mallard duck: >20,000 ppm

Quail: > 5,000 ppm

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Section 13- Disposal Considerations:

Discarded product is not considered as a hazardous waste under RCRA, 40 CFR 261.

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

Section 14- Transport Information:

DOT Classification: Not regulated

B/L Freight Classification: Plant Growth Inhibitor, Modifier or Regulator

Section 15-Regulatory Information:

Not classified as hazardous to users.

TSCA (Toxic substances control act) regulations, 40 CFR 710:

This product is a pesticide and is exempt from TSCA regulation.

CERCLA and SARA regulations (40CFR 355,370 and 372): This product does not contain any chemicals subject to the reporting requirements of SARA section 313.

Section 16- Other Information:

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. Greenleaf Chemical LLC assumes no responsibility for results obtained or for incidental or consequential damages arising from the use of these data.