MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS: EMERGENCY TELEPHONE NUMBERS:

RAINBOW TREECARE SCIENTIFIC ADVANCEMENTS (800) 424-9300 (CHEMTREC, transportation and spills)

11571 K-Tel Drive Minnetonka, MN 55343

PRODUCT NAME : MYCLOTECT™

CHEMICAL NAME : Myclobutanil: a-butyl-a-(4-chlorophenyl)-1H-1,2,4, triazole-1-propanenitrile

CHEMICAL FAMILY : Triazole fungicide

PRODUCT CODE : EPA Reg. No. 42750-166-74779

SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER	OSHA PEL	ACIGH TWA
Myclobutanil	19.7 %	88671-89-0	Not Established	Not Established
Petroleum distillates (containing	< 21.0 %	64742-94-5	100 mg/M3	100 mg/M3
naphthalene)		91-20-3	10 ppm	10 ppm

SECTION 3 - HAZARDS IDENTIFICATION SUMMARY

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

HEALTH HAZARDS: Moderate to Severe eye irritant. Can cause irreversible eye damage if not treated promptly.

PHYSICAL HAZARDS: May release toxic fumes if burned.

ENVIRONMENTAL HAZARDS: Myclobutanil is toxic to aquatic organisms.

SECTION 4 - FIRST AID MEASURES

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15 to 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 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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 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 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for more treatment advice.

NOTE TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration pneumonia.

SECTION 5 - FIRE FIGHTING MEASURES

FLASHPOINT (method): 140 F (60 C) FLAMMABLE LIMITS (LFL-UFL): Unknown

FIRE AND EXPLOSION HAZARD: Vapors from product can be flammable. Can burn in fire, releasing irritating and toxic

gases due to thermal decomposition or combustion.

EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, or water spray.

FIRE FIGHTING INSTRUCTIONS: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Fire exposed containers can build up pressure and should be kept cool with water spray if possible. Dike and collect water used to fight fire to prevent environmental damage due to run off.

FIRE FIGHTING EQUIPMENT: Self-contained breathing apparatus with full facepiece.

HAZARDOUS COMBUSTION PRODUCTS: Hydrogen chloride, hydrogen cyanide, Oxides of nitrogen, carbon monoxide.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Clean up spills immediately. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Wear appropriate personal protection equipment. (See Section 8 Exposure Controls, Personal Protection.)

SMALL SPILL: Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal.

LARGE SPILL: Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. After removal, scrub the area with detergent and water and neutralize with dilute alkaline solutions of soda ash, or lime.

This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. After removal, flush contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.

SECTION 7 - HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

HANDLING: Use only in a well-ventilated area. Wear appropriate safety equipment when handling. Use properly grounded equipment to prevent static electricity discharge.

STORAGE: Store in original container. Keep away from food, feed and drinking water. Store in a well ventilated, dry place away from heat and other sources of ignition. Minimum and maximum storage temperatures are 35 F to 120 F.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS (8 hour TWA, ppm): Refer to Section 3.

ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Local mechanical exhaust ventilation may be required. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION - Safety glasses or goggles.

CLOTHING - Long-sleeved shirt and long pants, Shoes plus socks.

GLOVES – Chemical-resistant gloves, such as barrier laminate, or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride or viton.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION: Off-white liquid

ODOR: Fuel oil like

MOLECULAR WEIGHT (technical): 307.8

MOLECULAR FORMULA (technical): C16H22CIN3O

SPECIFIC GRAVITY: 1.009 g/ml (8.42 lb/gal)

pH: 5.5 - 6.5

VAPOR PRESSURE (technical): 1.3 x 10-3 Pa @ 25 C

WATER SOLUBILITY: Emulsifies

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal storage conditions. However may decompose if heated. **CONDITIONS TO AVOID:** Avoid ignition sources and temperatures below 35 F and above 120 F

INCOMPATIBILITY WITH OTHER MATERIALS: Acidic and oxidizing materials

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride, Oxides of nitrogen

HAZARDOUS POLYMERIZATION: Product will not undergo polymerization.

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Eye Irritation (rabbit) - Severe, possible corneal injury

Skin Irritation (rabbit) - Moderate
Sensitization (guinea pig) - Non-sensitizer

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

CARCINOGEN STATUS:

OSHA - No NTP - No IARC - No

MUTAGENIC DATA: In-vitro and animal evidence indicates that myclobutanil is non-mutagenic

REPRODUCTIVE DATA: Myclobutanil exhibited reproductive toxicity in long term rat and rabbit studies at moderate doses.

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Do not apply directly to water or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. Do not apply when weather conditions favor drift or runoff from areas treated.

FISH TOXICITY: (technical)

96 hour LC_{50} , Rainbow trout -3.9 mg/L 96 hour LC_{50} , Bluegill -2.2 mg/L

AVIAN TOXICITY: (technical)

Oral LD_{50} , Bobwhite quail – 510 mg/Kg Dietary LC_{50} , Mallard duck - >5,000 ppm

BEE TOXICITY: (technical) Contact LD₅₀ - >200 ug/bee

SECTION 13 - DISPOSAL CONSIDERATIONS

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

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

CONTAINER DISPOSAL: Completely empty container into application equipment. 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.

SECTION 14 - TRANSPORT INFORMATION

DOT SHIPPING DESCRIPTION:

Containers < 119 gallons - Not regulated by DOT

Containers > 119 gallons - Combustible Liquid, NOS, (petroleum distillates), 3, PG III

DOT HAZARD CLASS: Class 3 (containers ≥ 119 gallons)

UN 1993 DOT PACKING GROUP: UN 1993

DOT PRIMARY/SECONDARY LABEL: Combustible Class 3 (containers ≥ 119 gallons) **DOT PRIMARY/SECONDARY PLACARD:** Combustible Class 3 (containers > 119 gallons)

DOT EMERGENCY RESPONSE GUIDE #: 128

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY: 100 lb Napthalene (approximately 625 gallons of product)

5,000 lb Cyclohexanone (approximately 5,900 gallons of product)

SARA TITLE III STATUS:

311/312 Hazard Categories – Immediate, Delayed 313 Toxic Chemicals – Myclobutanil (88671-89-0)

CALIFORNIA PROP 65: Contains myclobutanil

SECTION 16 - OTHER INFORMATION

DISCLAIMER: The information presented herein is based on available data from reliable sources and is correct to the best of Albaugh's knowledge. Albaugh makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

REVISED DATE: October 2009 REFERENCE: Initial version