Material Safety Data Sheet

FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL:
CHEMTREC 1-800-424-9300

Section 1—Chemical Product and Company Identification

Product Name: Topaz™ Fungicide
Common Name: Propiconazole
Chemical Description: 1-((2-(2,4-Dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl)-1H-1,2,4 triazole

Manufacturer’s Name: WINFIELD SOLUTIONS, LLC
P. O. Box 64589
St. Paul, MN 55164-0589

Medical Emergency Telephone Number: 1-877-424-7452
MSDS Creation Date: 1/20/2012

Section 2—Hazards Identification

Emergency Overview: Dark amber liquid with aromatic solvent odor. Product may cause oxygen deficiency in confined spaces; follow all OSHA regulations pertaining to confined space entry. See health effects below.

CAUTION: Keep out of reach of children.

Route(s) of Entry: Eyes, Inhalation, Skin, and Ingestion.

Health Hazards (Acute and Chronic):
Inhalation: Inhalation of mist may cause irritation of the upper respiratory tract.
Eyes: Causes irritation of eyes.
Skin: Contact may cause irritation. Possible skin sensitizer.
Ingestion: Harmful if swallowed.

Medical Conditions Generally Aggravated by Exposure:
None known. Preexisting respiratory conditions may be aggravated by exposure to mists.

Section 3—Composition Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>% (wt)</th>
<th>CAS reg. #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propiconazole</td>
<td>41.8%</td>
<td>60207-90-1</td>
</tr>
<tr>
<td>Aromatic solvent (contains naphthalene)</td>
<td>45.0 – 55.0%</td>
<td>64742-94-5</td>
</tr>
<tr>
<td>Surfactants (proprietary)</td>
<td>4.0-12.0%</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*Ingredients not specifically listed are non-hazardous and considered to be confidential business information.

Section 4—First Aid Measures

Inhalation: Remove person to fresh air and support breathing as needed. Call a poison control center or doctor for further treatment.

Ingestion: Immediately call a poison control center or doctor 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.

Eyes: Flush with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. Remove contact lenses, if present, after the first 5 minutes of flushing and continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin: Remove contaminated clothing and wash before re-using. Flush skin immediately with water for 15 - 20 minutes. Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN: No specific antidote. Treat symptomatically. The compound does not cause any definite symptoms that would be diagnostic. Contact with the eyes may cause irritation.

After first aid, get appropriate in-plant, paramedic, or community medical support.
Section 5—Fire and Explosion Hazard Data

Extinguishing Media: Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and full bunker gear. Smoke and fumes from fire may contain hazardous components. Contain run-off by diking to prevent contamination of water supplies.

Hazardous Combustion Products: Hydrogen chloride, hydrogen cyanide, oxides of nitrogen, carbon monoxide. Toxic gases may be formed in a fire situation. Carbon monoxide and other asphyxiates may form as well.

Unusual Fire and Explosion Hazards: Closed containers may explode from vapor expansion in high heat; keep cool with water spray if possible. Can burn in fire releasing irritating and toxic gases due to thermal decomposition or combustion.

Section 6—Accidental Release Measures

Spills: Clean-up spills immediately. Wear appropriate personal protection equipment (PPE). Keep unprotected personnel from entering.

Containment: Do not release into sewers or waterways. Dike spills to prevent contamination to water supplies or soil. Contain spills and absorb liquids by covering with clay or other absorbent material. Vacuum, scoop, or sweep up waste and place in a container for disposal.

Section 7—Precautions for Safe Handling and Use

Precautions to Be Taken in Handling and Storage: Use only in a well-ventilated area. Wear appropriate safety equipment when handling. Store in cool, dry areas away from children, feed and food products and sources of heat or ignition. Store in original container with lid tightly closed. Immediately clean up spills that occur during handling or storage.

Other Precautions: Consult Local, State, and Federal regulations pertaining to storage and disposal.

Section 8—Control Measures/Personal Protection

Exposure Guidelines: Aromatic solvent (contains naphthalene) (CAS #64742-94-5) 100ppm OSHA PEL and 100ppm ACIGH TLV

Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a properly FIT TESTED MSHA/NIOSH-approved respirator.

Ventilation: Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred.

NOTE TO END USERS: Refer to the product label for a full list of the required personal protective equipment (PPE) for this product.

Protective Gloves: Wear chemically protective gloves.

Eye Protection: Wear protective eyeglasses or chemical safety goggles. Contact lenses are not eye protective devices.

Personal Protective Equipment: Wear long-sleeved shirt, long pants, shoes and socks

Work/Hygienic Practices: Never eat, drink, nor smoke in work areas. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9—Physical/Chemical Characteristics

Physical State: Liquid

Vapor Pressure (mm Hg): 1.3 x 10^-6 Pa at 20°C

Vapor Density (Air=1): Not determined

Solubility in Water (wt %): 100 ppm at 20°C

Appearance and odor: Dark amber liquid, aromatic solvent odor.

Specific Gravity (H_2O=1): 1.03 – 1.05

Freezing Point: Not determined

Boiling Point: 350°F

pH: 5.0 – 6.0

Flash Point: 155°F (69°C) (closed cup)

Section 10—Reactivity Data

Stability: Stable, however may decompose if heated.

Chemical Incompatibilities: Acidic and oxidizing materials

Conditions to Avoid: Avoid temperatures above 125 F, (48 C).

Hazardous Decomposition Products: Hydrogen chloride, Oxides of nitrogen.

Hazardous Polymerization: Will not occur.
### Section 11—Toxicological Information

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye Effects</strong></td>
<td>Moderate irritation</td>
</tr>
<tr>
<td><strong>Dermal Effects</strong></td>
<td>&gt;4,000 mg/Kg; moderate irritation; potential sensitizer</td>
</tr>
<tr>
<td><strong>Acute Inhalation Effects</strong></td>
<td>&gt;2.04 mg/L</td>
</tr>
<tr>
<td><strong>Acute Oral Effects</strong></td>
<td>&gt;1,250 mg/Kg</td>
</tr>
<tr>
<td><strong>Chronic Effects</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Mutagenicity</strong></td>
<td>Preponderance of evidence indicates that propiconazole is non-mutagenic.</td>
</tr>
<tr>
<td><strong>Teratogenicity</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Carcinogenicity</strong></td>
<td>NTP: No</td>
</tr>
</tbody>
</table>

### Section 12—Ecological Information

**ENVIRONMENTAL SUMMARY:** This pesticide is toxic to estuarine and marine invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water or rinsate.

**FISH TOXICITY (technical propiconazole):** 96 hour LC50 Rainbow trout = 5.3 mg/L; 96 hour LC50 Bluegill = 6.4 mg/L.

**AVIAN TOXICITY (technical propiconazole):** Oral LC50 Bobwhite quail = 2,800 mg/kg; Oral LD50 Mallard duck = >2,500 mg/kg.

**BEE TOXICITY (technical propiconazole):** >100 ug/bee

### Section 13—Disposal Considerations

**Waste:** Dispose of in accordance with applicable Federal, state and local laws and regulations.

**Container:** Triple rinse (or equivalent) the empty containers. Then offer for recycling or reconditioning.

**RCRA characteristics:** Not determined

### Section 14—Transport Information

Containers less than or equal to 119 Gallons – Not Regulated by the U.S. DOT as a hazardous material

Containers greater than 119 Gallons: NA 1993, Combustible liquid, N.O.S. (contains petroleum distillate), PG III

**DOT Emergency Response Guide #: 128**

### Section 15—Regulatory Information

**TSCA Inventory:** Exempt from listing on TSCA inventory as the product is solely for FIFRA regulated use.

**SARA Title III, Section 302:** Not determined

**Sudden Release of Pressure:**
- Immediate: Yes
- Fire: No
- Delayed: Yes
- Reactive: No

**SARA Title III, Section 313:** Propiconazole (CAS # 60207-90-1) 41.8%

**CERCLA:** None listed

**PROPOSITION 65:** WARNING: This product may contain chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

### Section 16—Other

**Disclaimer:** The information presented herein is based on available data from reliable sources and is correct to the best of Winfield Solutions’ knowledge. Winfield Solutions, LLC 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. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.