SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: TEMPO® SC ULTRA INSECTICIDE  
MSDS Number: 102000012497  
EPA Registration No.: 432-1363  
Product Use: For Pest Management Professionals and Commercial Use only.

Bayer Environmental Science  
2 T.W. Alexander Drive  
Research Triangle PK, NC 27709  
USA

For MEDICAL, TRANSPORTATION or other EMERGENCY call 1-800-334-7577 (24 hours/day)  
For Product Information call 1-800-331-2867

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Average % by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>beta-Cyfluthrin</td>
<td>68359-37-5</td>
<td>11.80</td>
</tr>
<tr>
<td>1,2-Propanediol</td>
<td>57-55-6</td>
<td>15.20</td>
</tr>
</tbody>
</table>

SECTION 3. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview: Caution! Harmful if swallowed, inhaled or absorbed through the skin. Moderate eye irritation Avoid contact with skin, eyes and clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling.

Physical State: viscous liquid suspension

Odor: chalk-like

Appearance: white to beige

Routes of Exposure: Eye contact, Inhalation, Skin contact, Skin Absorption

Immediate Effects:

Eye: Mild eye irritation

Skin: Harmful if absorbed through skin. No skin irritation
**Material Safety Data Sheet**  
**TEMPO® SC ULTRA INSECTICIDE**

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Harmful if inhaled. Avoid breathing spray mist.</td>
</tr>
</tbody>
</table>

**SECTION 4. FIRST AID MEASURES**

| General         | Have the product container or label with you when calling a poison control center or doctor or going for treatment.                          |
| Eye             | 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. |
| Skin            | Take off all contaminated clothing immediately. Rinse immediately with plenty of water for at least 15 minutes. Call a poison control center or doctor for treatment advice. |
| Ingestion       | 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 directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended. |
| Inhalation      | Move 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 Treatment | There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. |

**SECTION 5. FIRE FIGHTING MEASURES**

| Flash Point     | > 93.4 °C / 200.1 °F                                                                                                                             |
| Suitable Extinguishing Media | water, foam, dry chemical                                                             |
Fire Fighting Instructions

Dike area to prevent runoff and contamination of water sources. Keep unnecessary people away, isolate hazard area and deny entry. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Keep out of smoke.

Equipment or materials involved in pesticide fires may become contaminated. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Avoid contact with spilled product or contaminated surfaces. Isolate hazard area. Keep unauthorized people away.

Methods for Cleaning Up
Take all necessary action to prevent and to remedy the effects of the spill. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Any disposal practice must be in compliance with all Federal, State/provincial, and local laws and regulations.

Additional Advice
Use proper protective equipment to minimize personal exposure (see Section 8). Do not allow material to enter streams, sewers, or other waterways or contact vegetation. Contact Bayer for further assistance if necessary.

SECTION 7. HANDLING AND STORAGE

Handling Procedures
Handle and open container in a manner as to prevent spillage.

Storing Procedures
Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Protect against frost. Store in original container and out of the reach of children, preferably in a locked storage area.

Work/Hygienic Procedures
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing spray mist. Avoid contact with skin, eyes and clothing.

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Wash clothing with detergent and hot water before reusing.

Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE). Shower and change into street clothes before leaving the work site.
SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**General Protection**
Educate and train employees in safe use of the product. Eye wash facility and safety shower should be available. Follow all label instructions.

Keep and wash PPE separately from other laundry. Follow manufacturer’s instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water.

**Engineering Controls**
Use with local exhaust ventilation.

**Eye/Face Protection**
Chemical resistant goggles must be worn.

**Hand Protection**
Chemical resistant nitrile rubber gloves

**Body Protection**
Wear long-sleeved shirt and long pants and shoes plus socks.

**Respiratory Protection**
When respiratory protection is necessary under the conditions of use, wear a respirator approved by the National Institute for Occupational Safety and Health (NIOSH).

**Exposure Limits**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Form of Exposure</th>
<th>TWA</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propanediol</td>
<td>WEEL TWA</td>
<td></td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td>Form of Exposure</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>WEEL TWA</td>
<td></td>
<td>10 mg/m³</td>
</tr>
</tbody>
</table>

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**
white to beige

**Physical State**
viscous liquid suspension

**Odor**
chalk-like

**pH**
4.7

**Density**
ca. 1.06 g/cm³ at 20 °C

SECTION 10. STABILITY AND REACTIVITY

**Chemical Stability**
Stable under recommended storage conditions.

**Incompatibility**
alkali metals
methanol
Acute toxicity studies have been bridged from a very similar formulation containing the active ingredient, Beta-cyfluthrin technical, an enriched isomer mixture of Cyfluthrin technical. The non-acute information pertains to technical-grade Beta-cyfluthrin. Toxicology information on Cyfluthrin technical can be obtained by calling the Product Use Information Number on Page 1.

**Acute Oral Toxicity**
- Male rat: LD50: 960 mg/kg
- Female rat: LD50: 1,150 mg/kg

**Acute Dermal Toxicity**
- Male/female rat: LD50: > 2,000 mg/kg

**Acute Inhalation Toxicity**
- Male/female rat: LC50: > 1.72 mg/l
  - Exposure time: 4 h (actual)
  - Maximum attainable concentration.
  - Deaths: 1/6 males, 0/6 females
- Male/female rat: LC50: > 6.88 mg/l
  - Exposure time: 1 h
  - Extrapolated from the 4 hr LC50. (actual)

**Skin Irritation**
- Rabbit: No skin irritation

**Eye Irritation**
- Rabbit: Mild eye irritation

**Sensitization**
- Guinea pig: Non-sensitizing

**Subchronic Toxicity**
Beta-cyfluthrin produced general signs of toxicity (e.g., decreased body weights) and/or neurobehavioral effects (e.g., uncoordinated gait) in subchronic dietary studies (rats, dogs) and in a 4-week inhalation study (rats).

**Assessment Carcinogenicity**
- ACGIH: None.
- NTP: None.
- IARC: None.
- OSHA: None.

**Reproductive & Developmental Toxicity**
DEVELOPMENTAL TOXICITY: Beta-cyfluthrin was not a primary developmental toxicant in a developmental toxicity study in rats. Developmental effects (e.g., delayed ossifications) were observed at the high-dose but were considered secondary to maternal toxicity.
Neurotoxicity

Beta-cyfluthrin produced slight transient neurobehavioral effects at the highest dose tested in acute and subchronic neurotoxicity screening studies in rats. There were no correlating compound-related morphological changes in the neural tissues in either study.

In a one-generation developmental neurotoxicity screening study in rats, offspring exposed to beta-cyfluthrin exhibited a reduction in startle response amplitude at the highest dose in conjunction with maternal toxicity. There were no compound-related morphological changes observed in the neural tissues.

Mutagenicity

Beta-cyfluthrin was not mutagenic or genotoxic in a battery of in vitro and in vivo mutagenicity studies.

SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions

This product is extremely toxic to fish and aquatic invertebrates. Disconnect any air supply sources to such tanks before applications are made and re-connect after any possibility of contamination has passed. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark.

Do not apply when weather conditions favor runoff or drift. Drift and runoff from treated areas may be hazardous to fish/aquatic organisms in adjacent sites. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product only as specified on the label.

This product is highly toxic to bees exposed to direct treatment or residues remaining on the treated areas. Do not apply this product or allow drift when bees are actively visiting the treatment area.
SECTION 13. DISPOSAL CONSIDERATIONS

**General Disposal Guidance**

Pesticide wastes are hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Disposal**

Follow advice on product label and/or leaflet. Do not re-use empty containers. Completely empty container into application equipment, then dispose of empty container in a sanitary landfill, by incineration or by other procedures approved by state/provincial and local authorities. Triple rinse containers. If burned, stay out of smoke.

SECTION 14. TRANSPORT INFORMATION

**TRANSPORTATION CLASSIFICATION:**

Not regulated for shipment by any mode of transportation

**FREIGHT CLASSIFICATION:**

Insecticides or Fungicides, N.O.I.; other than poison

SECTION 15. REGULATORY INFORMATION

**EPA Registration No.**

432-1363

**US Federal Regulations**

**TSCA list**

1,2-Propanediol  \( 57-55-6 \)

**US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)**

None.

**SARA Title III - Section 302 - Notification and Information**

None.

**SARA Title III - Section 313 - Toxic Chemical Release Reporting**

beta-Cyfluthrin  \( 68359-37-5 \) 1.0%

**US States Regulatory Reporting**

**CA Prop65**

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

**US State Right-To-Know Ingredients**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>beta-Cyfluthrin</td>
<td>68359-37-5</td>
<td>NJ</td>
</tr>
<tr>
<td>1,2-Propanediol</td>
<td>57-55-6</td>
<td>MN, RI</td>
</tr>
</tbody>
</table>
Canadian Regulations
   Canadian Domestic Substance List
      1,2-Propanediol  57-55-6

Environmental
   CERCLA
      None.
   Clean Water Section 307 Priority Pollutants
      None.
   Safe Drinking Water Act Maximum Contaminant Levels
      None.

International Regulations
   European Inventory of Existing Commercial Substances (EINECS)
      beta-Cyfluthrin  68359-37-5
      1,2-Propanediol  57-55-6

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):
   Health - 1   Flammability - 1   Reactivity - 0   Others - none
   0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason to Revise: New numbering system.

Revision Date: 07/14/2005

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