SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: TEMPRID™ SC INSECTICIDE
MSDS Number: 102000019505
EPA Registration No.: 432-1483

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>Imidacloprid</td>
<td>138261-41-3</td>
<td>21.00</td>
</tr>
<tr>
<td>beta-Cyfluthrin</td>
<td>68359-37-5</td>
<td>10.50</td>
</tr>
<tr>
<td>Glycerine</td>
<td>56-81-5</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 3. HAZARDS IDENTIFICATION

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

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

Physical State: suspension
Appearance: white to beige
Routes of Exposure: Skin Absorption, Eye contact, Ingestion

Immediate Effects:
Eye: May cause mild irritation to eyes. Do not get in eyes.
Skin: Harmful if absorbed through skin. Avoid contact with skin and clothing. May cause slight irritation.
Ingestion: Harmful if swallowed. Do not take internally.
Inhalation: Avoid contact or inhalation of spray mist.
Chronic or Delayed Long-Term: This product or its components may have long term (chronic) health effects. This product does not contain any ingredients designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

Potential Environmental Effect: Extremely toxic to fish and aquatic invertebrates. Extremely toxic to mammals.

SECTION 4. FIRST AID MEASURES

General: When possible, 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 physician or poison control center immediately.

Skin: Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.

Ingestion: Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. 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 physician or poison control center immediately.

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: > 93.3 °C / 199.9 °F

Suitable Extinguishing Media: Water spray, Foam, Carbon dioxide (CO2), Dry chemical

Fire Fighting Instructions: Avoid contact with spilled product or contaminated surfaces. Evacuate personnel to safe areas. Keep out of smoke. Fight fire from upwind position. Cool closed containers/ tanks exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
SECTION 6. ACCIDENTAL RELEASE MEASURES

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

Methods for Cleaning Up  Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional Advice  Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

SECTION 7. HANDLING AND STORAGE

Handling Procedures  Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation. For personal protection see section 8.

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. Store in original container and out of the reach of children, preferably in a locked storage area.

Work/Hygienic Procedures  Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection  Follow all label instructions. Train employees in safe use of the product.

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

Eye/Face Protection  Tightly fitting safety goggles

Hand Protection  Chemical resistant nitrile rubber gloves

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

When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Exposure Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imidacloprid</td>
<td>138261-41-3</td>
<td>OES BCS* 0.7 mg/m³</td>
</tr>
<tr>
<td>beta-Cyfluthrin</td>
<td>68359-37-5</td>
<td>TX ESL 50 ug/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ST ESL 50 ug/m³</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
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<td></td>
<td>AN ESL 5 ug/m³</td>
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<td>Glycerine</td>
<td>56-81-5</td>
<td>ACGIH 10 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA Z1 5 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA Z1 15 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA Z1A 5 mg/m³</td>
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<tr>
<td></td>
<td></td>
<td>OSHA Z1A 10 mg/m³</td>
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*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance**: white to beige
- **Physical State**: suspension
- **pH**: approx. 6.9 (10 %)
- **Density**: 1.16 g/cm³

SECTION 10. STABILITY AND REACTIVITY

- **Conditions to Avoid**: Extremes of temperature and direct sunlight.
- **Hazardous Reactions**: Stable under recommended storage conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Only acute toxicity studies have been performed on the formulated product. The non-acute information pertains to the technical-grade active ingredients, imidacloprid and beta-cyfluthrin, an enriched isomer mixture of cyfluthrin. Further toxicological information on technical-grade cyfluthrin can be obtained by calling the Product Information Number, which is listed in Section 1 of this MSDS.
Acute Oral Toxicity  
**female rat:** LD50: > 1,044 mg/kg

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

Acute Inhalation Toxicity  
**rat:** LC50: > 2.03 mg/l  
**Exposure time:** 4 h  
**Determined in the form of liquid aerosol.**  
**highest concentration tested**  
No deaths

Skin Irritation  
**rabbit:** Slight irritation.

Eye Irritation  
**rabbit:** Mild eye irritation.

Sensitization  
**guinea pig:** Non-sensitizing.

Chronic Toxicity  
Imidacloprid caused thyroid and/or liver effects in chronic dietary studies in rats and dogs.

Assessment Carcinogenicity  
Imidacloprid was not carcinogenic in studies in rats and mice.

**ACGIH**  
None.

**NTP**  
None.

**IARC**  
None.

**OSHA**  
None.

Reproductive & Developmental Toxicity  
**REPRODUCTION:** Imidacloprid was not a reproductive toxicant in a multi-generation study in rats.

**DEVELOPMENTAL TOXICITY:** Imidacloprid is not considered a primary developmental toxicant in rats and rabbits. Developmental effects were observed at doses that caused maternal toxicity.

**DEVELOPMENTAL TOXICITY:** Beta-cyfluthrin was not a primary developmental toxicant in rats. Developmental effects were observed but were considered secondary to maternal toxicity.

Neurotoxicity  
Imidacloprid showed slight behavioral and activity changes only at the highest dose tested in neurotoxicity studies in rats. There were no correlating morphological changes observed in the neural tissues.

Beta-cyfluthrin produced slight transient neurobehavioral effects in acute, subchronic and developmental neurotoxicity screening studies in rats. These effects occurred at the highest dose tested and without correlating morphological changes in the neural tissues.
Mutagenicity

Imidacloprid was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

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

SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance

Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility. Never place unused product down any indoor or outdoor drain. Follow advice on product label and/or leaflet.

Container Disposal

Follow advice on product label and/or leaflet. Do not re-use empty containers. Triple rinse containers. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

SECTION 14. TRANSPORT INFORMATION

DOT CLASSIFICATION:
Not regulated for Domestic Surface Shipment

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

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 432-1483

US Federal Regulations
TSCA list
Glycerine 56-81-5
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  
beta-Cyfluthrin  68359-37-5  NJ  
Glycerine  56-81-5  IL, MN, RI

Canadian Regulations  
Canadian Domestic Substance List  
Glycerine  56-81-5

Environmental  
CERCLA  
None.

Clean Water Section 307 Priority Pollutants  
None.

Safe Drinking Water Act Maximum Contaminant Levels  
None.

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 Material Safety Data Sheet.

Revision Date: 10/03/2008

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