Material Safety Data Sheet
TEMPO® 20 WP INSECTICIDE

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: TEMPO® 20 WP INSECTICIDE
MSDS Number: 102000007122
PCP Registration No.: 25673

Bayer CropScience Inc.
#100 - 3131 - 114th Avenue SE
Calgary, AB T2Z 3X2
Canada

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
For Product Information call: 1-888-283-6847

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>Cyfluthrin</td>
<td>68359-37-5</td>
<td>20.00</td>
</tr>
<tr>
<td>Quartz (Silica, Crystalline)</td>
<td>14808-60-7</td>
<td>4.00</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. Keep out of reach of children and animals. Avoid breathing dust or spray mist.

Physical State: solid powder

Appearance: tan

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

Immediate Effects
Eye: Wear protective eyewear. Mild eye irritation. Avoid contact with eyes.
Skin: Mild skin irritant. May cause a transient, localized paresthesia, characterized by tingling, burning or numbness sensation in some individuals. Avoid contact with skin and clothing.
Ingestion: Harmful if swallowed.
Inhalation: Avoid breathing dust or spray mist. Mist may cause irritation involving the nose, throat and upper respiratory tract during the end use of the product such as during a spray application.
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Chronic or Delayed Long-Term
This product is not listed as a carcinogen by ACGIH, NTP, IARC or OSHA. However, it may contain crystalline silica (quartz), a substance which has been listed as a carcinogen by ACGIH, NTP and IARC. Crystalline silica is a naturally-occurring mineral component of many sands and clays. Although the carcinogenic potential of crystalline silica in humans is controversial, it must be considered if it is inhaled under excessive exposure conditions. The respirable portion of the silica that may be contained in this product, however, is small, such that inhalation exposure during anticipated conditions of use is minimal.

Medical Conditions Aggravated by Exposure
No specific medical conditions are known which may be aggravated by exposure to this product. As with all materials which can cause upper respiratory tract irritation, persons with a history of asthma, emphysema, or hyperreactive airways disease may be more susceptible to overexposure. Pulmonary and respiratory diseases may be aggravated by exposure to respirable crystalline silica.

Potential Environmental Effect
Highly toxic to bees. Toxic to fish and aquatic organisms.

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 not applicable

Autoignition Temperature Not combustible.

Lower Flammability Limit not applicable

Upper Flammability Limit not applicable

Suitable Extinguishing Media Water, Dry chemical

Fire Fighting Instructions Fight fire from upwind position. Evacuate personnel to safe areas. 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. Do not enter confined spaces unless adequately ventilated. Use personal protective equipment.

Methods for Cleaning Up Clean contaminated floors and objects thoroughly, observing environmental regulations. Collect and transfer the product into a properly labelled and tightly closed container. Decontaminate tools and equipment following cleanup.

Additional Advice Information regarding personal protective equipment, see section 8.

SECTION 7. HANDLING AND STORAGE

Handling Procedures Use only in area provided with appropriate exhaust ventilation.

Keep away from heat and sources of ignition.

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. Keep containers tightly closed in a dry, cool and well-ventilated place.

Work/Hygienic Procedures Wash thoroughly with soap and water after handling.

Min/Max Storage Recommended minimum transport/storage temperature: 50 °C / 122 °F
SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Eye/Face Protection  Tightly fitting safety goggles
Hand Protection  Chemical resistant nitrile rubber gloves
Body Protection  Long-sleeved shirt and long pants
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>Substance</th>
<th>Code</th>
<th>OEL (QUE)</th>
<th>TWA</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (Silica, Crystalline)</td>
<td>14808-60-7</td>
<td>OEL</td>
<td>TWA</td>
<td>0.1 mg/m³</td>
</tr>
<tr>
<td>Form of exposure</td>
<td></td>
<td></td>
<td></td>
<td>Respirable dust. Exposure must be minimized.</td>
</tr>
<tr>
<td>CAD AB OEL</td>
<td>TWA</td>
<td>0.1 mg/m³</td>
<td></td>
<td>Respirable particles.</td>
</tr>
<tr>
<td>Form of exposure</td>
<td></td>
<td></td>
<td></td>
<td>0.025 mg/m³</td>
</tr>
<tr>
<td>CAD BC OEL</td>
<td>TWA</td>
<td>0.1 mg/m³</td>
<td></td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Form of exposure</td>
<td></td>
<td></td>
<td></td>
<td>0.01 mg/m³</td>
</tr>
<tr>
<td>CAD ON OEL</td>
<td>TWA</td>
<td>0.1 mg/m³</td>
<td></td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Form of exposure</td>
<td></td>
<td></td>
<td></td>
<td>0.10 mg/m³</td>
</tr>
</tbody>
</table>

Cyfluthrin  68359-37-5  OES BCS*

Form of exposure  OES BCS*
Remarks  0.01 mg/m³

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"
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Partition coefficient: n-octanol/water
no data available

SECTION 10. STABILITY AND REACTIVITY

Conditions to Avoid
Heat, flames and sparks.
Exposure to moisture.

Incompatibility
methanol
Alkali metals
Alkaline earth metals
Bases
Light metals

Hazardous Reactions
Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Only acute toxicity studies have been performed on this product as formulated. The non-acute information pertains to the active ingredient, cyfluthrin.

Acute Oral Toxicity
male rat: LD50: 3,084 mg/kg
female rat: LD50: 1,733 mg/kg

Acute Dermal Toxicity
male/female combined rabbit: LD50: > 2,000 mg/kg

Acute Inhalation Toxicity
male/female combined rat: LC50: > 1.18 mg/l
Exposure time: 4 h
Determined in the form of dust.
Highest attainable concentration.
(actual)

male/female combined rat: LC50: > 4.72 mg/l
Exposure time: 1 h
Determined in the form of dust.
Highest attainable concentration.
Extrapolated from the 4 hr LC50.
(actual)

Skin Irritation
rabbit: Slight irritation.

Eye Irritation
rabbit: Mild eye irritation.

Sensitization
guinea pig: Non-sensitizing.

Chronic Toxicity
Cyfluthrin caused clinical signs of toxicity including neurological symptoms in
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Assessment Carcinogenicity
Cyfluthrin was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH
Quartz (Silica, Crystalline) 14808-60-7 Group A2

NTP
None.

IARC
Quartz (Silica, Crystalline) 14808-60-7 Overall evaluation: 1

OSHA
None.

Reproductive & Developmental Toxicity
REPRODUCTION: Cyfluthrin caused toxicity in offspring at doses producing systemic toxicity in adult rats.

DEVELOPMENTAL TOXICITY: Cyfluthrin was not a primary developmental toxicant in rats and rabbits. Developmental effects were observed but were considered secondary to maternal toxicity.

Neurotoxicity
Cyfluthrin caused neurobehavioral effects and/or minimal nerve damage in neurotoxicity studies in mice, rats and hens.

Mutagenicity
Cyfluthrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions
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. Apply this product as specified on the label. Do not allow to get into surface water, drains and ground water. 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 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
Do not contaminate water, food, or feed by disposal. 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. Pesticide wastes are acutely toxic and hazardous.

Container Disposal
Do not re-use empty containers. Not completely emptied packagings should be disposed of as hazardous waste.
SECTION 14. TRANSPORT INFORMATION

TDG (Canada):
Not regulated for road and rail.

SECTION 15. REGULATORY INFORMATION

PCP Registration No. 25673

US Federal Regulations
TSCA list
Quartz (Silica, Crystalline) 14808-60-7
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
Cyfluthrin 68359-37-5 1.0%

US States Regulatory Reporting
CA Prop 65
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
Cyfluthrin 68359-37-5 NJ
Quartz (Silica, Crystalline) 14808-60-7 IL, MA, MN

Canadian Regulations
Canadian Domestic Substance List
Quartz (Silica, Crystalline) 14808-60-7

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 - 2    Flammability - 1    Reactivity - 1    Others - none
0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason to Revise: Updated for general editorial purposes.

Prepared by the HSE Department of Bayer CropScience Inc. (306)-721-0310.

Revision Date: 02/01/2008

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