



Material Safety Data Sheet

TEMPO® 20 WP INSECTICIDE

MSDS Number: 102000007122

MSDS Version 1.2

Revision Date: 05/20/2010

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

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

Bayer CropScience Inc
 #200, 160 Quarry Park Blvd, SE
 Calgary, Alberta T2C 3G3
 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. 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

Exposure routes 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.

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.



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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 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Cyfluthrin	68359-37-5	20.00
Quartz (Silica, Crystalline)	14808-60-7	
Crystalline quartz (respirable)		

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 Treat symptomatically. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

Flash point not applicable



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Autoignition temperature	Not combustible.
Lower Flammability Limit	not applicable
Upper Flammability Limit	not applicable
Suitable extinguishing media	Water, Dry chemical
Fire Fighting Instructions	<p>Fight fire from upwind position. Evacuate personnel to safe areas. Do not allow run-off from fire fighting to enter drains or water courses.</p> <p>Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.</p>

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	<p>Use only in area provided with appropriate exhaust ventilation.</p> <p>Keep away from heat and sources of ignition.</p>
Storing Procedures	<p>Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Keep containers tightly closed in a dry, cool and well-ventilated place.</p> <p>The 60-day storage temperature average must not exceed the recommended maximum.</p>
Work/Hygienic Procedures	Wash thoroughly with soap and water after handling.
Min/Max Storage Temperatures	Recommended maximum transport/storage temperature: 50 °C / 122 °F



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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

Quartz (Silica, Crystalline)	14808-60-7	OEL (QUE)	TWA	0.1 mg/m3
		CAD AB OEL	TWA	0.1 mg/m3
		CAD BC OEL	TWA	0.025 mg/m3
		CAD ON OEL	TWAEV	0.10 mg/m3
		OEL (QUE)	TWA	0.1 mg/m3
Cyfluthrin	68359-37-5	CAD BC OEL	TWA	0.025 mg/m3
		OES BCS*	TWA	0.01 mg/m3

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	tan
Physical State	solid powder
Vapor Density (Air = 1)	no data available
Bulk density	20 - 26 lb/ft³
Evaporation rate	no data available
Boiling Point	not applicable
Melting / Freezing Point	no data available
Partition coefficient: n-octanol/water	no data available

SECTION 10. STABILITY AND REACTIVITY



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Conditions to avoid	Heat, flames and sparks. Exposure to moisture.
Incompatibility	methanol Alkali metals Alkaline earth metals Bases Light metals
Chemical Stability	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
Sensitisation	guinea pig: Non-sensitizing.
Chronic toxicity	Cyfluthrin caused clinical signs of toxicity including neurological symptoms in chronic studies in rats and dogs.

Assessment Carcinogenicity

Cyfluthrin was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH



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Quartz (Silica, Crystalline)	14808-60-7	Group A2
NTP Crystalline quartz (respirable)		
IARC Quartz (Silica, Crystalline)	14808-60-7	Overall evaluation: 1
OSHA None.		

Reproductive toxicity	<p>REPRODUCTION: Cyfluthrin caused toxicity in offspring at doses producing systemic toxicity in adult rats.</p> <p>DEVELOPMENTAL TOXICITY: Cyfluthrin was not a primary developmental toxicant in rats and rabbits. Developmental effects were observed but were considered secondary to maternal toxicity.</p>
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.
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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

According to national and international transport regulations this material is not classified as dangerous goods / hazardous material.



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Freight Classification: INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN POISON

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 Prop65

This product contains a chemical known to the State of California to cause cancer.
Crystalline quartz (respirable)

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

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.

International Regulations

European Inventory of Existing Commercial Substances (EINECS)

Quartz (Silica, Crystalline) 14808-60-7



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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: The following sections have been revised: Section 3: Composition / Information on Ingredients. Updated for general editorial purposes.

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

Revision Date: 05/20/2010

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