



Material Safety Data Sheet

TEMPO® ULTRA WSP INSECTICIDE WATER SOLUBLE PACKETS

MSDS Version: 2.0

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name	TEMPO® ULTRA WSP INSECTICIDE WATER SOLUBLE PACKETS
Chemical Name	
Common Name	
MSDS Number	2015
Chemical Family	
Chemical Formulation	
EPA Registration No.	432-1377
Product Use	Insecticide for broad-spectrum control of crawling, flying, and wood-infesting insect pests on indoor and outdoor surfaces, as well as insect pests of trees, landscape ornamentals and residential and commercial lawns.

Bayer Environmental Science
95 Chestnut Ridge Road
Montvale, NJ 07645
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

<u>Hazardous Component Name</u>	<u>CAS No.</u>	<u>Concentration % by Weight</u>	
		<u>Minimum</u>	<u>Maximum</u>
Beta-cyfluthrin Technical	68359-37-5	9.0000	11.0000
Crystalline Silica (Quartz)	14808-60-7	0.6900	7.4800

SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview Caution! Moderate eye irritation. Harmful if swallowed, inhaled or absorbed through the skin. Do not get in eyes, on skin, or on clothing. Avoid breathing dust or spray mist.

Physical State	Powder
Odor	Slight Aromatic
Appearance	Tan

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Routes of Exposure	Inhalation, Skin contact, Skin Absorption, Eye contact
Immediate Effects	
Eye	Moderate eye irritation. Do not get in eyes.
Skin	Harmful if absorbed through skin. Avoid contact with skin. May cause a transient, localized paresthesia, characterized by tingling, burning or numbness sensation in some individuals. May cause transient skin redness. May cause skin irritation.
Ingestion	Harmful if swallowed. Do not take internally.
Inhalation	Harmful if inhaled. Avoid breathing dust or spray mist. May cause irritation of the mucous membranes.
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 excessive inhalation exposure during anticipated conditions of use is unlikely.
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.

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. Wash off 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. Do not give anything by mouth to an unconscious or convulsing person.
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.

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Notes to Physician

Treatment	There is no antidote. Treat symptomatically.
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SECTION 5. FIRE FIGHTING MEASURES

Flash Point	Not applicable
Suitable Extinguishing Media	Water, Dry chemical
Fire Fighting Instructions	Keep out of smoke. Stay upwind. Do not allow run-off from fire fighting to enter drains or water courses. Equipment or materials involved in pesticide fires may become contaminated. Wear self-contained breathing apparatus and protective suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

General and Disposal	Isolate hazard area. Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces.
Land Spill or Leaks	Avoid dust formation. Avoid breathing dust. Avoid contact with skin. Use recommended protective equipment while carefully sweeping up spilled material. Place in covered container for reuse or disposal. Scrub contaminated area with soap and water. Rinse with water. Use dry absorbent material such as clay granules to absorb and collect wash solution for proper disposal. Contaminated soil may have to be removed and disposed. Do not allow material to enter streams, sewers, or other waterways.

SECTION 7. HANDLING AND STORAGE

Handling Procedures	Handle and open container in a manner as to prevent spillage. Avoid contamination of feed and foodstuffs. Foods should be removed or covered before treatments. Food processing surfaces and equipment must be covered during treatment or cleaned with a suitable detergent and rinsed with potable water before reuse. Remove pets, birds and cover fish aquaria before spraying. When using in animal quarters, do not apply directly to food, water or food supplements.
Storing Procedures	Do not contaminate water, food, or feed by storage or disposal. Do not freeze. 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 thoroughly with soap and water after handling. Remove and wash contaminated clothing before re-use.

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Min/Max Storage Temperatures The 30 day average storage temperature is not to exceed 37.8°C (100°F).

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

Eye/Face Protection Goggles

Hand Protection Suitable chemical resistant gloves

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

Respiratory Protection Dust/mist filtering respirator

General Protection Follow all label instructions. Educate and train employees in safe use of the product.

Do not allow children and pets to enter the treated area until it has dried.

Exposure Limits			
Crystalline Silica (Quartz)	14808-60-7	NIOSH REL	0.05 mg/m3
		Form of Exposure	Respirable dust.
		OSHA Z1A TWA	0.1 mg/m3
		Form of Exposure	Respirable dust.
		US CA OEL TWA PEL	0.1 mg/m3
		Form of Exposure	Respirable dust.
		US CA OEL TWA PEL	0.3 mg/m3
		Form of Exposure	Total dust.
		ACGIH TWA	0.05 mg/m3
		Form of Exposure	Respirable fraction.
		OSHA Z1 PEL	5 mg/m3
		Form of Exposure	Respirable fraction.
		OSHA Z1 PEL	15 mg/m3
		Form of Exposure	Total dust.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Tan

Physical State Powder

Odor Slight Aromatic

pH 9.1 (as a dispersion)

Bulk Density 16 - 29 lbs/cu ft

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SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Conditions to Avoid	Heat Exposure to moisture.
Incompatibility	Alkalines Methanol
Hazardous Polymerization (Conditions to Avoid)	Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity studies have not been performed on TEMPO ULTRA WSP INSECTICIDE WATER SOLUBLE PACKETS containing Beta-Cyfluthrin, the enriched isomer mixture of the active ingredient, Cyfluthrin. The acute toxicology information has been bridged from a similar formulation, TEMPO 20% Wettable Powder, containing Cyfluthrin. The non-acute information pertains to the active ingredients, Beta-Cyfluthrin technical and Cyfluthrin technical.

Futher toxicological information on Cyfluthrin Technical can be obtained by calling the Product Information Number, which is listed in Section 1 on this MSDS.

Acute Oral Toxicity	Male Rat: LD50: 3,084 mg/kg Female Rat: LD50: 1,733 mg/kg
Acute Dermal Toxicity	Male/Female Rat: LD50: > 2,000 mg/kg
Acute Inhalation Toxicity	Male/Female Rat: LC50: 4-hr exposure to dust: > 1.18 mg/l (actual) Male/Female Rat: 1-hr exposure to dust (extrapolated from 4-hr LC50): > 4.72 mg/l (actual)
Skin Irritation	Rabbit: Mild skin irritant.
Eye Irritation	Rabbit: Mild irritant.
Sensitization	Guinea pig: non-sensitizing
Subchronic Toxicity	In a subchronic dietary study, dogs treated with beta-cyfluthrin, exhibited vomiting, diarrhea, decreased body weight gain and clinical neurological symptoms at the highest dose level (360 ppm). In a subchronic dietary study in rats treated with beta-cyfluthrin, effects included reduced body weight gains and feed consumption, uncoordinated gait, and skin injuries of the neck and head from excessive preening due to the local irritant effect of the test material.

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In a 4-week inhalation study in rats exposed to beta-cyfluthrin, effects observed included ungroomed fur, piloerection, hyper- and hypoactivity, reduced body weight gains, hematological changes and reduced organ weights (thymus, spleen).

Assessment Carcinogenicity

ACGIH

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

NTP

Crystalline Silica (Quartz) 14808-60-7

IARC

Crystalline Silica (Quartz) 14808-60-7

OSHA

None

Reproductive & Developmental Toxicity

DEVELOPMENTAL TOXICITY: In an oral developmental toxicity study in rats treated with beta-cyfluthrin, decreased fetal body weights and an increased incidence of skeletal findings were observed at the maternally toxic and lethal high dose level (40 mg/kg).

Neurotoxicity

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

In a one-generation developmental neurotoxicity screening study in rats, offspring exposed to beta-cyfluthrin showed decreased body weights and an associated reduction in startle response amplitude. These effects occurred at the highest dose tested and in conjunction with maternal toxicity. There were no compound-related morphological changes observed in the neural tissues.

Mutagenicity

Numerous in vitro and in vivo mutagenicity studies have been conducted on beta-cyfluthrin, all of which are negative.

SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions

Toxic to fish. Cover or remove any fish or aquatic organism tank within structures being treated. 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. 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 on blooming crops or weeds. Do not apply it or allow it to drift to crops or weeds on which bees are actively foraging.

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SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance	Pesticide Disposal: 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	Do not re-use empty containers. Empty residue into application equipment. 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.
RCRA Classification	Not Regulated under this Statute

SECTION 14. TRANSPORT INFORMATION

DOT CLASSIFICATION:
Not regulated for Domestic Surface Transportation

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

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 432-1377

US Federal Regulations

TSCA list

Crystalline Silica (Quartz) 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

Beta-cyfluthrin Technical 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 Silica (Quartz) 14808-60-7

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

US State right-to-know ingredients

Crystalline Silica (Quartz) 14808-60-7 IL, MA, MN, PA

Canadian Regulations

Canadian Domestic Substance List

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Environmental

CERCLA

None

Clean Water Section 307 Priority Pollutants

None

Safe Drinking Water Act Maximum Contaminant Levels

None

International Regulations

EU Classification

None

European Inventory of Existing Commercial Substances (EINECS)

Beta-cyfluthrin Technical 68359-37-5

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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

MSDS REVISION INDICATOR: New Format and Update Sections as needed.

Approval Date: 10/04/2004

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