



Material Safety Data Sheet
TEMPO® SC ULTRA INSECTICIDE

MSDS Number: 102000012497
 MSDS Version 1.0
 Revision Date: 07/14/2005

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

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

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

MSDS Number: 102000012497
MSDS Version 1.0

Ingestion	Harmful if swallowed.
Inhalation	Harmful if inhaled. Avoid breathing spray mist.

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



Material Safety Data Sheet

MSDS Number: 102000012497
MSDS Version 1.0

TEMPO® SC ULTRA INSECTICIDE

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.



Material Safety Data Sheet
TEMPO® SC ULTRA INSECTICIDE

MSDS Number: 102000012497
 MSDS Version 1.0

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 1,2-Propanediol	57-55-6	WEEL	TWA	50 ppm
		Form of Exposure	Total vapor and aerosol.	
		WEEL	TWA	10 mg/m3
		Form of Exposure	Aerosol.	

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



Material Safety Data Sheet
TEMPO® SC ULTRA INSECTICIDE

MSDS Number: 102000012497
 MSDS Version 1.0

SECTION 11. TOXICOLOGICAL INFORMATION

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.



Material Safety Data Sheet

MSDS Number: 102000012497
MSDS Version 1.0

TEMPO® SC ULTRA INSECTICIDE

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.



Material Safety Data Sheet
TEMPO® SC ULTRA INSECTICIDE

MSDS Number: 102000012497
 MSDS Version 1.0

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

beta-Cyfluthrin	68359-37-5	NJ
1,2-Propanediol	57-55-6	MN, RI



Material Safety Data Sheet
TEMPO® SC ULTRA INSECTICIDE

MSDS Number: 102000012497
MSDS Version 1.0

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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