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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name Product code (UVP) SDS Number EPA Registration No. TEMPO® SC ULTRA INSECTICIDE 06523803 102000012497 432-1363

Relevant identified uses of the substance or mixture and uses advised againstUseInsecticideRestrictions on useSee product label for restrictions.

Information on manufacturer

Bayer Environmental Science 2 T.W. Alexander Drive Research Triangle PK, NC 27709 United States

Emergency telephone no. All Emergencies, 24hr/ 7 days 1-800-334-7577

Product Information Telephone No.

SDS Information or Request SDSINFO.BCS-NA@bayer.com

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200 Eye irritation : Category 2B Acute toxicity (Oral): Category 4 Acute toxicity (Inhalation): Category 4

Labelling in accordance with regulation HCS 29CFR §1910.1200



Signal word: Warning

Hazard statements

Causes eye irritation. Harmful if swallowed. Harmful if inhaled.

Precautionary statements

Wash hands and face thoroughly after handling. Do not eat, drink or smoke when using this product.



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Avoid breathing mist and spray. Use only outdoors or in a well-ventilated area. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell. Dispose of contents/container in accordance with local regulation.

Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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

SECTION 4: FIRST AID MEASURES

Description of first aid measures		
General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.	
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.	
Skin contact	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.	
Eye contact	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.	
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.	
Most important symptoms and effects, both acute and delayed		
Symptoms	To date no symptoms are known.	



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Indication of any immediate medical attention and special treatment needed

Treatment

Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	
Suitable	Water, Foam, Dry chemical
Unsuitable	None known.
Special hazards arising from the substance or mixture	Dangerous gases are evolved in the event of a fire.
Advice for firefighters	
Special protective equipment for fire-fighters	Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
Further information	Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Evacuate personnel to safe areas. Keep out of smoke. Do not allow run-off from fire fighting to enter drains or water courses.
Flash point	> 93.4 °C
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Explosivity	not applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions	Avoid contact with spilled product or contaminated surfaces. Isolate hazard area. Keep unauthorized people away.	
Methods and materials for con	ntainment and cleaning up	
Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations. Decontaminate tools and equipment following cleanup.	

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Additional advice	Do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants.
Reference to other sections	Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Handle and open container in a manner as to prevent spillage. Use only in area provided with appropriate exhaust ventilation.	
Hygiene measures	Avoid contact with skin, eyes and clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.	
Conditions for safe storage, including any incompatibilities		
Requirements for storage areas and containers	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. Protect from freezing. Store in original container and out of the reach of children, preferably in a locked storage area.	

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Beta-Cyfluthrin	68359-37-5	50 ug/m3 (ST ESL)	10 2003	TX ESL
Beta-Cyfluthrin (Particulate.)	68359-37-5	50 ug/m3 (ST ESL)	10 2003	TX ESL
Beta-Cyfluthrin (Particulate.)	68359-37-5	5 ug/m3 (AN ESL)	10 2003	TX ESL
Beta-Cyfluthrin	68359-37-5	5 ug/m3 (AN ESL)	10 2003	TX ESL
Beta-Cyfluthrin	68359-37-5	0.01 mg/m3 (TWA)		OES BCS*
1,2-Propanediol (Aerosol.)	57-55-6	10 mg/m3 (TWA)	2010	WEEL
1,2-Propanediol	57-55-6	1000 ug/m3 (ST ESL)	03 2012	TX ESL
1,2-Propanediol	57-55-6	50 ug/m3 (ST ESL)	03 2012	TX ESL



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1,2-Propanediol	57-55-6	100 ug/m3 (AN ESL)	03 2012	TX ESL
1,2-Propanediol	57-55-6	50 ppb (AN ESL)	03 2012	TX ESL
1,2-Propanediol	57-55-6	500 ppb (ST ESL)	03 2012	TX ESL
1,2-Propanediol	57-55-6	5 ug/m3 (AN ESL)	03 2012	TX ESL

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

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

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.	
Hand protection	Chemical resistant nitrile rubber gloves	
Eye protection	Tightly fitting safety goggles	
Skin and body protection	Wear long-sleeved shirt and long pants and shoes plus socks.	
General protective measures	Remove contaminated clothing immediately and dispose of safely.	
ineasures	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.	

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white to beige
Physical State	viscous liquid suspension
Odor	chalk-like
Odour Threshold	no data available
рН	4.7
Vapor Pressure	no data available

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Vapor Density (Air = 1)	no data available
Density	ca. 1.06 g/cm3 at 20 °C
Evapouration rate	no data available
Boiling Point	no data available
Melting / Freezing Point	no data available
Water solubility	no data available
Solubility in other solvents	no data available
Minimum Ignition Energy	not applicable
Decomposition temperature	not applicable
Partition coefficient: n- octanol/water	no data available
Flash point	> 93.4 °C
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Explosivity	not applicable

SECTION 10: STABILITY AND REACTIVITY

Reactivity Thermal decomposition	not applicable
Chemical stability	Stable under normal conditions.
Conditions to avoid	freezing
Incompatible materials	Alkali metals, Methanol



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Hazardous decomposition no data available products

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Eye contact, Inhalation, Skin contact, Skin Absorption	
Immediate Effects Eye	Moderate eye irritation may occur.	
Skin	Harmful if absorbed through skin.	
Ingestion	Harmful if swallowed.	
Inhalation	Harmful if inhaled.	
Information on toxicological effects		
Acute oral toxicity	LD50 (male rat) 960 mg/kg	
	LD50 (female rat) 1,150 mg/kg	
Acute inhalation toxicity	LC50 (male/female combined rat) > 1.72 mg/l Exposure time: 4 h Highest attainable concentration.	
	LC50 (male/female combined rat) > 6.88 mg/l Exposure time: 1 h Extrapolated from the 4 hr LC50.	
Acute dermal toxicity	LD50 (male/female combined rat) > 2,000 mg/kg	
Skin irritation	No skin irritation (rabbit)	
Eye irritation	Mild eye irritation. (rabbit)	
Sensitisation	Non-sensitizing. (guinea pig)	

Assessment repeated dose toxicity

The toxic effects of beta-Cyfluthrin are related to transient hyperactivity typical for pyrethroid neurotoxicity.

Assessment Mutagenicity

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

Assessment Carcinogenicity

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

ACGIH

None.



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NTP

None.

IARC

None.

OSHA

None.

Assessment toxicity to reproduction

beta-Cyfluthrin caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with beta-Cyfluthrin is related to parental toxicity.

Assessment developmental toxicity

beta-Cyfluthrin caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with beta-Cyfluthrin are related to maternal toxicity.

Further information

Acute toxicity studies have been bridged from a similar formulation(s). The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish	LC50 (Rainbow trout (Oncorhynchus mykiss)) 0.000068 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient beta-cyfluthrin.
Toxicity to aquatic invertebrates	EC50 (Water flea (Daphnia magna)) 0.00029 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient beta-cyfluthrin.
Toxicity to aquatic plants	EC50 (Desmodesmus subspicatus) > 0.01 mg/l Exposure time: 72 h The value mentioned relates to the active ingredient beta-cyfluthrin. No acute toxicity was observed at its limit of water solubility.
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. Do not allow to get into surface water, drains and ground water. Do not apply when weather conditions favor runoff or drift. 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.



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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

Waste treatment methods

Product	Dispose in accordance with all local, state/provincial and federal regulations. 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.
Contaminated packaging	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.
RCRA Information	Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR	Not dangerous goods / not hazardous material	
IMDG UN number Class Packaging group Marine pollutant Proper shipping name	3082 9 III YES ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BETA-CYFLUTHRIN SOLUTION)	
IATA UN number Class Packaging group Environm. Hazardous Mark	3082 9 III YES	



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Proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BETA-CYFLUTHRIN SOLUTION)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

SECTION 15: REGULATORY INFORMATION

Subpt D) None.	432-1363 57-55-6 rol Act (TSCA) Section 12(b) Ex - Notification and Information	xport Notification (40 CFR 707,	
None. SARA Title III - Section 313 Beta-Cyfluthrin US States Regulatory Reporting CA Prop65	- Toxic Chemical Release Repo 68359-37-5	orting 1.0%	
•	any substances known to the St	ate of California to cause cancer.	
This product does not contain reproductive harm. US State Right-To-Know Ing Beta-Cyfluthrin 1,2-Propanediol	any substances known to the St gredients 68359-37-5 57-55-6	ate of California to cause NJ MN, RI	
Canadian Regulations Canadian Domestic Substan 1,2-Propanediol	nce List 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 Exis 1,2-Propanediol	ting Commercial Substances (I 57-55-6	EINECS)	

EPA/FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification



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criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

Signal word: Caution!

Hazard statements: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.

SECTION 16: OTHER INFORMATION

 NFPA 704 (National Fire Protection Association):
 Health - 1
 Flammability - 1
 Instability - 0
 Others - none

 HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)
 Health - 1
 Flammability - 1
 Physical Hazard PPE

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

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