



TEMPO® ULTRA WP INSECTICIDE

Version 3.0 / USA
102000016285

1/11
Revision Date: 06/12/2014
Print Date: 02/09/2015

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

Product identifier

Trade name TEMPO® ULTRA WP INSECTICIDE

Product code (UVP) 03545575

SDS Number 102000016285

EPA Registration No. 432-1304

Relevant identified uses of the substance or mixture and uses advised against

Use Insecticide

Restrictions on use See product label for restrictions.

Information on manufacturer

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

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577 (24 hours/day)

Product Information Telephone Number 1-800-331-2867

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



Signal word: Warning

Hazard statements

Causes eye irritation.

Harmful if swallowed.

Precautionary statements

Wash face, hands and any exposed skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.



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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/doctor/physician if you feel unwell.
Rinse mouth.
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 | 10.00 |
| Sodium lignosulphonate | 8061-51-6 | 4.00 |
| Crystalline quartz (respirable) | 14808-60-7 | 3.95 |

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. |
| Indication of any immediate medical attention and special treatment needed | |

| | |
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| Treatment | Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote. |
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SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Water, 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 Keep out of smoke. Fight fire from upwind position. Do not allow run-off from fire fighting to enter drains or water courses.

Flash point not applicable

Autoignition temperature no data available

Lower explosion limit not applicable

Upper explosion limit not applicable

Explosivity no data available

Dust explosion class no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Avoid dust formation. Do not breathe dust. Isolate hazard area. Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Methods for cleaning up Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations. Contaminated soil may have to be removed and disposed.

Additional advice Do not allow to enter soil, waterways or waste water canal. Use personal protective equipment.

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.



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SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

Hygiene measures Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.
Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Protect from freezing.
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. 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 | 50ug/m3 (ST ESL) | 10 2003 | TX ESL |
| Beta-Cyfluthrin (Particulate.) | 68359-37-5 | 50ug/m3 (ST ESL) | 10 2003 | TX ESL |
| Beta-Cyfluthrin (Particulate.) | 68359-37-5 | 5ug/m3 (AN ESL) | 10 2003 | TX ESL |
| Beta-Cyfluthrin | 68359-37-5 | 5ug/m3 (AN ESL) | 10 2003 | TX ESL |
| Beta-Cyfluthrin | 68359-37-5 | 0.01 mg/m3 (TWA) | | OES BCS* |
| Quartz (Silica, Crystalline) (Respirable fraction.) | 14808-60-7 | 0.025 mg/m3 (TWA) | 02 2012 | ACGIH |
| Quartz (Silica, Crystalline) (Respirable dust.) | 14808-60-7 | 0.05 mg/m3 (REL) | 2010 | NIOSH |
| Quartz (Silica, Crystalline) (Respirable dust.) | 14808-60-7 | 0.1 mg/m3 (TWA) | 1989 | OSHA Z1A |
| Quartz (Silica, Crystalline) (Respirable dust.) | 14808-60-7 | 0.1 mg/m3 (TWA) | 06 2008 | TN OEL |
| Quartz (Silica, Crystalline) | 14808-60-7 | 14ug/m3 (ST ESL) | 03 2012 | TX ESL |



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|--|------------|--|---------|-----------|
| Quartz (Silica, Crystalline) (Total dust.) | 14808-60-7 | 0.3 mg/m3 (TWA PEL) | 08 2010 | US CA OEL |
| Quartz (Silica, Crystalline) (Respirable dust.) | 14808-60-7 | 0.1 mg/m3 (TWA PEL) | 08 2010 | US CA OEL |
| Quartz (Silica, Crystalline) (Total dust.) | 14808-60-7 | 0.3 mg/m3 (TWA) | 2000 | Z3 |
| Quartz (Silica, Crystalline) (Respirable.) | 14808-60-7 | 2.4millions of particles per cubic foot of air (TWA) | 2000 | Z3 |
| Quartz (Silica, Crystalline) (Respirable.) | 14808-60-7 | 0.1 mg/m3 (TWA) | 2000 | Z3 |
| Sodium lignosulphonate (Particulate.) | 8061-51-6 | 50ug/m3 (ST ESL) | 02 2013 | TX ESL |
| Sodium lignosulphonate (Particulate.) | 8061-51-6 | 5ug/m3 (AN ESL) | 02 2013 | 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

Goggles

Skin and body protection

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

General protective measures

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 | tan |
| Physical State | powder |
| Odor | characteristic |
| Odour Threshold | no data available |
| pH | no data available |
| Vapor Pressure | no data available |
| Vapor Density (Air = 1) | no data available |



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| | |
|---|----------------------------|
| Bulk density | 19 - 26 lb/ft ³ |
| Evaporation rate | not applicable |
| Boiling Point | not applicable |
| Melting / Freezing Point | not applicable |
| Water solubility | no data available |
| Minimum Ignition Energy | no data available |
| Decomposition temperature | no data available |
| Partition coefficient: n-octanol/water | no data available |
| Viscosity | not applicable |
| Flash point | not applicable |
| Autoignition temperature | no data available |
| Lower explosion limit | not applicable |
| Upper explosion limit | not applicable |
| Explosivity | no data available |
| Dust explosion class | no data available |

SECTION 10: STABILITY AND REACTIVITY

Reactivity

| | |
|---|--|
| Thermal decomposition | no data available |
| Chemical stability | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Exposure to moisture. Heat, flames and sparks. |
| Incompatible materials | Bases, Methanol |
| Hazardous decomposition products | No decomposition products expected under normal conditions of use. |

SECTION 11: TOXICOLOGICAL INFORMATION

| | |
|--------------------------|---|
| Exposure routes | Eye contact, Skin Absorption, Skin contact, Inhalation, Ingestion |
| Immediate Effects | |



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| | |
|-------------------|-----------------------------------|
| Eye | Moderate eye irritation. |
| Skin | Harmful if absorbed through skin. |
| Ingestion | Harmful if swallowed. |
| Inhalation | Harmful if inhaled. |

Information on toxicological effects

| | |
|----------------------------------|--|
| Acute oral toxicity | LD50 (male rat) 3,084 mg/kg LD50 (female rat) 1,733 mg/kg |
| Acute inhalation toxicity | LC50 (rat) > 1.18 mg/l Exposure time: 4 h Determined in the form of dust. LC50 (rat) > 4.72 mg/l Exposure time: 1 h Determined in the form of dust. Extrapolated from the 4 hr LC50. |
| Acute dermal toxicity | LD50 (rabbit) > 2,000 mg/kg |
| Skin irritation | Mild 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.

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.



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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 (<i>Oncorhynchus mykiss</i>)) 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 (<i>Daphnia magna</i>)) 0.00029 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient beta-cyfluthrin. |
| Toxicity to aquatic plants | EC50 (<i>Desmodesmus subspicatus</i>) > 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. |
| Biodegradability | beta-Cyfluthrin; not rapidly biodegradable |
| Koc | beta-Cyfluthrin: Koc: 508 - 3179 |
| Bioaccumulation | beta-Cyfluthrin: Bioconcentration factor (BCF) 506; Does not bioaccumulate. |
| Mobility in soil | beta-Cyfluthrin: Immobile in soil |
| 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. 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 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. Follow advice on product label and/or leaflet. |
| Contaminated packaging | Do not re-use empty containers. Completely empty container into application equipment, then dispose of |



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empty container in a sanitary landfill, by incineration or by other procedures approved by state/provincial and local authorities. If burned, stay out of smoke. Follow advice on product label and/or leaflet.

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 **3077**
Class 9
Packaging group III
Marine pollutant YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (BETA-CYFLUTHRIN MIXTURE)

IATA

UN number **3077**
Class 9
Packaging group III
Environm. Hazardous Mark YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (BETA-CYFLUTHRIN MIXTURE)

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.

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

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 432-1304

US Federal Regulations

TSCA list

Sodium lignosulphonate 8061-51-6

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.



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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

Canadian Regulations

Canadian Domestic Substance List

Sodium lignosulphonate 8061-51-6

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

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 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: 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.

SECTION 16: OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 2 Flammability - 1 Instability - 1 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1 Flammability - 1 Physical Hazard - 1 PPE -

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

Bayer Environmental Science
SAFETY DATA SHEET



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

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