SAFETY DATA SHEET

TEMPO® SC ULTRA INSECTICIDE

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

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

Relevant identified uses of the substance or mixture and uses advised against
Use: Insecticide
Restrictions on use: See product label for restrictions.

Information on supplier
Supplier: Bayer Environmental Science
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
USA
Responsible Department: Email: SDSINFO.BCS-NA@bayer.com
Emergency telephone no.
Emergency Telephone Number (24hr/ 7 days): 1-800-334-7577
Product Information Telephone Number: 1-800-331-2867

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200
Acute toxicity(Oral): Category 4

Labelling in accordance with regulation HCS 29CFR §1910.1200

Signal word: Warning

Hazard statements
Harmful if swallowed.

Precautionary statements
Wash hands and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.
SAFETY DATA SHEET

TEMPO® SC ULTRA INSECTICIDE

Version 3.0 / USA
102000012497

Revision Date: 02/22/2018
Print Date: 02/23/2018

Rinse mouth.
Dispose of contents/container in accordance with local regulation.

Hazards Not Otherwise Classified (HNOC)
No physical hazards not otherwise classified.
No health hazards not otherwise classified.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Concentration % by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beta-Cyfluthrin</td>
<td>1820573-27-0</td>
<td>11.8</td>
</tr>
</tbody>
</table>

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. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Rinse out mouth and give water in small sips to drink. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

**Most important symptoms and effects, both acute and delayed**
To date no symptoms are known.

**Indication of any immediate medical attention and special treatment needed**
Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.
SAFETY DATA SHEET

TEMPO® SC ULTRA INSECTICIDE

Version 3.0 / USA
102000012497

Revision Date: 02/22/2018
Print Date: 02/23/2018

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 firefighters
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
Auto-ignition 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 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 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.

Additional advice Use personal protective equipment. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal.

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
Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. 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.

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. Store in original container and out of the reach of children, preferably in a locked storage area. Protect from freezing.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beta-Cyfluthrin</td>
<td>1820573-27-0</td>
<td>0.01 mg/m³ (TWA)</td>
<td></td>
<td>OES BCS*</td>
</tr>
</tbody>
</table>

*OES BCS: Internal Bayer AG, Crop Science Division "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
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
pH  3.5 - 5.5 at 10 %
Vapor Pressure  No data available
Vapor Density (Air = 1)  No data available
Density  ca. 1.06 g/cm³ at 20 °C
Evaporation 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
Viscosity  600 - 1,100 cps
Flash point  > 93.4 °C
Auto-ignition 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.
Possibility of hazardous reactions  No dangerous reaction known under conditions of normal use.
Conditions to avoid
freezing

Incompatible materials
Alkali metals, Methanol

Hazardous decomposition products
No decomposition products expected under normal conditions of use.

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
Determined in the form of liquid aerosol.
Highest attainable concentration.

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 STOT Specific target organ toxicity – repeated exposure
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.

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 (Oncorhynchus mykiss (rainbow trout)) 0.000068 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient beta-cyfluthrin.

Toxicity to aquatic invertebrates
EC50 (Daphnia magna (Water flea)) 0.00029 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient beta-cyfluthrin.

Toxicity to aquatic plants
IC50 (Desmodesmus subspicatus (green algae)) > 0.01 mg/l
Growth rate; 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.

Toxicity to bacteria
EC50 (activated sludge) > 10,000 mg/l
The value mentioned relates to the active ingredient beta-cyfluthrin.

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.
Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash 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 apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.
Apply this product as specified on the label.

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.

Contaminated packaging
Do not re-use empty containers.
Triple rinse containers.
Puncture container to avoid re-use.
Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning.
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
3082
Class
9
Packaging group
III
Marine pollutant
YES
Proper shipping name
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BETA-CYFLUTHRIN SOLUTION)

IATA
UN number
3082
Class
9
Packaging group
III
Environm. Hazardous Mark
YES
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

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)
Not applicable.
SARA Title III - Section 302 - Notification and Information
None.
SARA Title III - Section 313 - Toxic Chemical Release Reporting
Beta-Cyfluthrin 1820573-27-0
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 1820573-27-0 NJ, RI
1,2-Propanediol 57-55-6 MN, RI

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: 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

Abbreviations and acronyms
49CFR Code of Federal Regulations, Title 49
ACGIH  US. ACGIH Threshold Limit Values
ATE  Acute toxicity estimate
CAS-Nr.  Chemical Abstracts Service number
CERCLA  Comprehensive Environmental Response, Compensation, and Liability Act
EINECS  European inventory of existing commercial substances
ELINCS  European list of notified chemical substances
IARC  International Agency for Research on Cancer
IATA  International Air Transport Association
IMDG  International Maritime Dangerous Goods
N.O.S.  Not otherwise specified
NTP  US. National Toxicology Program (NTP) Report on Carcinogens
OECD  Organization for Economic Co-operation and Development
TDG  Transportation of Dangerous Goods
TWA  Time weighted average
UN  United Nations
WHO  World health organisation

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

- Health - 1
- Flammability - 1
- Physical Hazard - 0
- PPE -

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

**Reason for Revision:** The following sections have been revised: Section 2: Hazards Identification. Reviewed and updated for general editorial purposes.

**Revision Date:** 02/22/2018

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.