



# TIDE INTERNATIONAL USA, INC.

—A DIVISION OF TIDE GROUP

MAIN OFFICE : 21 HUBBLE, IRVINE, CA 92618, USA

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## Safety Data Sheet (SDS) of Tide Tebu 3.6F Foliar Fungicide

### Section 1 – Chemical Product and Company Identification

Product name	Tide Tebu 3.6F Foliar Fungicide
Synonyms name	None
Chemical Class	Triazole
Recommended Use	Fungicide
Company details	
Importer	Tide International USA, Inc.. 21 Hubble, Irvine, CA 92618
EPA Reg. No.	84229-12
Emergency phone	Chemtrec 1-800-424-9300 Tide International USA, Inc. 1-949-679-3535

### Section 2 – Hazard(s) Identification

Classified as Hazardous according to criteria of the Hazard Communication Standard (HCS) or 29 CFR §1910.1200 (2012).

#### Classification of the substance or mixture:

- Acute Inhalation (Category 4)
- Skin irritation (Category 2)
- Eye irritation (Category 2B)
- Hazardous to the Aquatic Environment (Category 3)
- Aquatic Chronic (Category 2)

#### Label elements

##### HCS labeling

##### Hazard pictograms (HCS)



Signal Word: WARNING



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## GHS Hazard Statements:

- Causes skin irritation
- Causes eye irritation
- Harmful if inhaled
- Suspected of damaging fertility or the unborn child
- Toxic to aquatic life with long lasting effects

## Other hazard information:

**NFPA Ratings:** Health-2      Flammability-0      Reactivity-0

## Signs and Symptoms of Systemic Effects:

Symptoms of acute exposure: Contact with the eyes may cause irritation. Contact with skin may cause moderately irritation, well-defined erythema and very slight edema may be happened.

Symptoms of chronic exposure: Based on toxicity studies of the active ingredient, tebuconazole, there may be toxic effects on the following organs: spleen, liver, adrenals, and lens of the eye.

**Environmental hazards:** This product is toxic to mammals, fish, and aquatic invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

## Section 3 - Composition / Information on Ingredients

Active ingredient	CAS No.	Content (w/w,%)	ACIGH TLV
Tebuconazole $\alpha$ -[2-(4-chlorophenyl)ethyl]- $\alpha$ -(1,1-dimethylethyl)-1H-1,2,4-triazole-1-ethanol	107534-96-3	40.53 min.	NA
Propylene glycol	57-55-6	5.0~7.0	10 mg/m <sup>3</sup> TWA
Sodium alkyl naphthalene sulphonate – formaldehyde condensate	68425-94-5	1.0~3.0	NA
Other ingredient deemed not to be hazardous	Proprietary	Balance	-

## Section 4 – First-Aid Measures

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact CHEMTREC at 1-800-424-9300 for emergency medical treatment information.

### If swallowed:



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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 told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If on skin or Clothing:**

Take off contaminated clothing and wash before reuse. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. If skin irritation occurs: Get medical advice/attention.

**If in eyes:**

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.

**If inhaled:**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**Note to physician:**

No specific antidote is available. Treat symptomatically.

## Section 5 – Fire-Fighting Measures

**Flashpoint:** > 100°C

**Combustible:** This product is not combustible.

**Means of Extinction:** Extinguish fire using carbon dioxide, foam or dry agent. If not available, use waterfog or fine water spray but ensure all runoff is contained.

**Hazardous combustion products:** Oxides of carbon and nitrogen, hydrogen chloride and hydrogen cyanide.

**Fire fighting instructions:** Recommended use of self contained breathing apparatus and full protective equipment.

## Section 6 - Accidental Release Measures

Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

If container is leaking invert to prevent leakage. If the container is leaking or material is spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticide below. In spill or leak incidents, keep unauthorized people away.



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## Section 7- Handling and Storage

KEEP OUT OF REACH OF CHILDREN!

**Handling:** Use only outdoors or in a well-ventilated area. Avoid release to the environment. Ensure containers are kept closed until using product. Use personal protective equipment as required. Wear protective gloves and eye / face protection. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. When opening the container, preparing the spray and using prepared spray wear cotton overalls buttoned to the neck and wrist, washable hat, elbow-length PVC gloves. After use, and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

**Storage:** Store locked up. Store in a cool, secure, 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 reach of children, preferably in a locked storage area.

## Section 8 - Exposure Controls/Personal Protection

### Exposure limit values

Components.	CAS-No	Control parameters	Basis
Tebuconazole	107534-96-3	NA	NA

### Engineering controls

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

Handle only with adequate ventilation. Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

### Personal protection

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage. When opening the container, preparing the spray and using prepared spray wear cotton overalls buttoned to the neck and wrist, washable hat, elbow-length PVC gloves.

**Respiratory Protection:** If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include: Full-face air-purifying respirator.

**Hand Protection:** The glove material has to be impermeable and resistant to the product/ the



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substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.



Elbow-length PVC or nitrile gloves

**Eye Protection:** If contact is likely, safety glasses with side shields are recommended.



Tightly sealed goggle

**Skin and Body Protection:** Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

Cotton overall buttoned to the neck and wrist

Washable hat

**Specific Hygiene Measures:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Wash clothing and other absorbent materials that have been exposed to this product. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **Environmental controls**

See Sections 6, 7, 12, 13.

## **Section 9 - Physical and Chemical Properties**

**Appearance:** Off-White thick liquid; Suspension

**Odor:** Resin-like odor

**Odor threshold:** No Data Available

**pH:** 5.5-7.5

**Melting point/freezing point:** 105°C

**Initial boiling point and boiling range:** No Data Available

**Flashpoint:** > 100°C

**Evaporation rate:** No Data Available

**Vapor pressure:** No Data Available

**Vapor density:** No Data Available

**Density:** 1.10±0.05 g/mL

**Solubility:** In water 36 mg/l (pH 5-9, 20 °C). In dichloromethane >200, isopropanol, toluene 50-100, hexane <0.1 (all in g/l, 20 °C).

**Octanol/water partition coefficient:** log Kow = 3.7



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**Auto-ignition temperature:** No Data Available

**Decomposition temperature:** No Data Available

**Viscosity:** Not Applicable

These physical data are typical values based on material test but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis and any specific lot or as specification items.

## Section 10 - Stability and Reactivity

**Reactivity:** Product will not undergo polymerization

**Chemical stability:** This material is stable under normal conditions of storage and use.

**Possibility of hazardous reactions:** Will not occur hazardous polymerization.

**Conditions to avoid:** Excessive heat.

**Incompatible Materials:** Oxidizing agents.

**Hazardous decomposition products:** Oxides of carbon and nitrogen, hydrogen chloride and hydrogen cyanide.

## Section 11 - Toxicological Information

**Exposure routes:** Ingestion; skin contact; skin absorption; eye contact.

### Toxicity

Acute oral toxicity	LD <sub>50</sub> for female rat >5000mg/kg (Category 4)
Acute dermal toxicity	LD <sub>50</sub> for rabbits >5000mg/kg (Category 4)
Acute inhalation toxicity	LC <sub>50</sub> (4h) >2.0mg/L
Skin irritation	Moderately skin irritating
Eye irritation	Minimally eye irritating
Sensitization	No sensitizing

**Chronic Toxicity:** Tebuconazole caused liver, spleen, adrenal and/or eye effects at high doses in rats and dogs.

**Carcinogenicity:** No significant carcinogenic risk is posed for human exposure. Tebuconazole is classified by EPA as a Group C (possible human carcinogen) based on selected animal studies. Liver tumors in mice were seen only at a dose exceeding a Maximum Tolerated Dose (MTD). Not listed by ACGIH, NTP, IARC, or OSHA.

**Reproduction:** Not considered a primary reproductive toxicant in rats. Reproductive effects were observed at the highest concentration but were considered secondary to maternal toxicity.

**Developmental Toxicity:** Not considered a primary developmental toxicant in lab animals.

Developmental effects were observed only at doses that caused maternal toxicity.

**Neurotoxicity:** Tebuconazole caused only transient neurobehavioral effects in acute, subchronic and/or developmental neurotoxicity studies in rats.





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**Mutagenicity:** Negative

## Section 12 - Ecological Information

### **Ecotoxicity:**

Avoid contamination of any water supply with chemical or empty container.

### **Avian toxicity: Tebuconazole technical**

Acute oral LD<sub>50</sub> for male Japanese quail 4438, female Japanese quail 2912, bobwhite quail 1988 mg/kg b.w. Dietary LC<sub>50</sub> (5 d) for mallard ducks >4816, bobwhite quail >5000 mg/kg feed.

### **Aquatic organism toxicity: Tebuconazole technical**

Fish: LC<sub>50</sub> (96 h) for rainbow trout 4.4, bluegill sunfish 5.7 mg/l (flow through). Daphnia LC<sub>50</sub> (48 h) 4.2 mg/l (flow through).

Algae ErC<sub>50</sub> (72 h, static) for *Selenastrum capricornutum* 3.80 mg/l.

Other aquatic spp.: No effect on *Chironomus riparius* at 0.1 mg/l (28 d).

### **Other non-target organism toxicity: Tebuconazole technical**

Bees: LD<sub>50</sub> (48 h, oral) 83 µg/bee; (contact) >200 µg/bee.

Worms: Acute LC<sub>50</sub> (14 d) for *Eisenia foetida* 1381 mg/kg dry soil.

Other beneficial spp.: No adverse effects on ground dwellers, e.g. ground beetles (*Poecilus cupreus*) (adults and larvae) or on foliage dwellers, e.g. ladybirds (*Coccinella septempunctata*), up to 375 g/ha.

**Persistence/Degradability:** Tebuconazole is not readily degradable in laboratory soil studies, but under field conditions it degrades much more rapidly and does not accumulate. In animals, tebuconazole is excreted in urine and faeces and after 3 days elimination is almost complete. In plants the half life is approximately 12 days.

**Bioaccumulative potential:** Not bioaccumulative

**Mobility in soil:** It has a low potential for leaching into groundwater or moving to deeper soil layers.

**Other adverse effects:** No other effects to be mentioned.

## Section 13 - Disposal Considerations

Dispose of contents and container in accordance with local regulations. End users must dispose of any unused product as per the label recommendations.

**Pesticide disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container disposal:** Nonrefillable container. Do not reuse or refill this container. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or



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disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## Section 14 - Transport Information

<b>D.O.T. Shipping Name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Contains Tebuconazole)
<b>Technical Shipping Name:</b>	Tide Tebu 3.6F Foliar Fungicide
<b>Packing Group:</b>	III
<b>D.O.T. Hazard Class:</b>	9
<b>U.N/N.A. Number:</b>	UN3082
<b>Marine Pollutant:</b>	Yes

## Section 15 - Regulatory Information

### FIFRA –

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. The following is the hazard information as required on the pesticide label:

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin, eyes, and clothing. Avoid breathing vapor or spray mist.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to mammals, fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

### US Federal Regulations

#### TSCA list:

All components are listed or exempted.

**SARA Title III - section 302 - notification and information** None

**SARA Title III - section 313 - toxic chemical release reporting**

**SARA Title III - section 311/312 - hazard identification**

Acute health hazardous

Chronic health hazardous





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This product contains none of the components listed as Extremely Hazardous substances.

## 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.

### State information:

Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore, the user should consult state or local authorities.

## Canadian Regulations

All ingredients are on the inventory or exempt from listing.

## Environmental

### CERCLA

NA

### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

## Section 16 - Other Information

SDS# ZTCS-FUN8422912

Created date: 01/12/2015

Update date:

Revised for:

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