

**TIDE INTERNATIONAL USA, INC.****—A DIVISION OF TIDE GROUP**

REVISION DATE: 09/15/2017 VERSION 2.0

[1. Identification]

Product name: Tide USA TEBU 3.6F Fungicide

Chemical name: ([RS]-1-[4-chlorophenyl]-4,4-dimethyl-3-[1H-1,2,4-triazol-1-ylmethyl]-pentan-3-ol)

Chemical family: Triazole

EPA Reg. No.: 84229-34

Recommended Use: Fungicide

Supplier: Tide International USA, Inc.
21 Hubble, Irvine, CA 92618
(949) 679-3535
www.Tide-USA.com

For medical or chemical* emergencies: Call CHEMTREC®: 1-800-424-9300 (24 hours/day)

*Spill, leak, fire, exposure or accident information: Call the NATIONAL PESTICIDE INFORMATION CENTER
1-800-858-7378 (Monday - Friday, 8-12 PM Pacific time)

[2. Hazard(s) Identification]**According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR §1910.1200 (2012)**

Acute Oral (Category 5)

Acute inhalation (Category 4)

Skin irritation (Category 2)

Eye irritation (Category 2B)

Specific target organ toxicity - repeated exposure (Category 2)

Acute aquatic toxicity (Category 2)

GHS label elements:**GHS pictograms****Signal Word: WARNING****GHS Hazard statements**

H303 May be harmful if swallowed

H332 Harmful if inhaled.

H315 Causes skin irritation.

H320 Causes eye irritation

H373 May cause damage to organs through prolonged or repeated exposure.

H401 Toxic to aquatic life.

Precautionary statements:

Prevention:

- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P271 Use only outdoors or in a well-ventilated area.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves and eye protection.
P273 Avoid release to the environment.

Response:

- P304 + P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
P312 Call a poison center/doctor if you feel unwell.
P302 + P352 If on skin: Wash with plenty of soap and water
Specific treatment (No specific antidote. Treat symptomatically)
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P305 + P351 + P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.

Storage: See sections 7 for storage information

Disposal:

- P501 Dispose of contents/container to hazardous or special waste collection point.

Routes of exposure: Eye contact, Inhalation, Skin Absorption, Ingestion.

Carcinogenicity: Tebuconazole is not significant carcinogenic; Tebuconazole is classified by EPA as Group C (possible human carcinogen) based on selected animal studies. Liver tumors in mice seen only at a dose exceeding a maximum Tolerated Dose (MTD). Not listed by ACGIH, NTP, IARC, or OSHA.

Other health concerns

NFPA Ratings: Health-2 Flammability-1 Reactivity-1

[3. Composition / Information on Ingredients]

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200"

Common name	CAS No.	Content (w/w,%)	ACGIH TWA
Tebuconazole	1075364-96-3	38.7	NA
Propylene glycol	57-55-6	≤5.0	NA
Silica Filled Polydimethylsiloxane	Prop.		NA
Siloxane Polyalkyleneoxide Copolymer	Prop.	<4.0	NA
Xanthan gum	1138-66-2	<1.0	NA
1,2-benzisothiazolin-3-one	2634-33-5	<1.0	NA
Water	7732-18-5	Balance	NA

[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 inhaled: Remove person to fresh air and keep comfortable for breathing. If person is not breathing, call 911 for an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. If eye irritation persists: Get medical advice/ attention.

If on skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a POISON CENTER/doctor/physician if you feel unwell.

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 swallowed: 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 by a poison control center or doctor. Do not give anything to an unconscious person. Immediately call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms/effects, acute and delayed:

No information available.

Note to Physician: There is no specific antidote. Use appropriate supportive and symptomatic treatment as indicated by the patient's condition.

[5. Fire-Fighting measures]

Suitable extinguishing media: Use dry chemical, foam or CO₂ extinguishing media.

Unsuitable extinguishing media: No data available.

Special hazards arising from the chemical (hazardous combustion products): Oxides of carbon and nitrogen, hydrogen chloride and hydrogen cyanide.

Special protective equipment and precautions for fire-fighters: Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing

Advice for firefighters: Fight fire from upwind position. Keep out of smoke. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth. Do not allow run-off from fire-fighting to enter drains or water courses.

[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.

Environmental precautions: Do not apply directly to water, or to areas where surface water is present. Do not apply to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters or rinsate.

Methods and materials for containment and 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.

[7. Handling and Storage]

Precautions for safe handling:

Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing dust/fume/gas/mist/ vapours/spray. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Wash face and hands before eating, drinking or smoking. Remove contaminated clothing and wash before reuse.

Conditions for safe storage:

Keep container closed when not in use. Do not store near food or feed. Protect from freezing. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste area.

[8. Exposure controls / Personal protection]

Control parameters:

Components.	CAS-No	Control parameters	Basis
Tebuconazole	1075364-96-3	NE	NE

Appropriate engineering controls:

Provide adequate ventilation when product is used. Eyewash and shower should be provided in mixing and loading areas.

Personal protective equipment:

Always follow the label instructions when handling this product. 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 gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or Viton.

Eye protection Chemical tight goggles; full face shield in addition of splashing is possible.

Skin and body protection Wear long-sleeved shirt and long pants and shoes plus socks. Wear a chemical resistant apron when mixing/loading and cleaning equipment.

General protective measures: Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Eye wash facility and safety shower should be available. If needed, use local exhaust to keep exposures to a minimum.

[9. Physical and chemical properties]

Appearance (physical state, color etc.): Off-white thick (viscous) liquid.

Odor: Resin-like odor.

Odor threshold: No data available.

pH value: 5.5-7.5.

Melting point/freezing point: No data available.

Initial boiling point and boiling range: No data available.

Flash point: 105°C (221°F).

Evaporation rate: No data available

Flammability (solid, gas): No data available.

Upper/lower flammability or explosive limits: No data available.

Vapor pressure: No data available.

Vapor density: No data available.

Specific gravity (water=1): 1.10 @ 20 °C (68 °F)

Solubility in water: 36 mg/L.

Partition coefficient: n-octanol/water: logKow = 3.7.

Auto-ignition temperature: No data available.

Decomposition temperature: No data available.

Viscosity: No data available.

Note 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 or as a specification.

[10. Stability and reactivity]

Reactivity: Product will not undergo polymerization

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use.

Conditions to avoid (e.g. static discharge, shock or vibration): Extremes of temperature and direct sunlight.

Incompatible materials: Avoid strong oxidizing agents.

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

[11. Toxicological information]

Exposure routes: Eye contact, Inhalation, Skin Absorption, Ingestion

Acute oral toxicity: LD₅₀ (female rat) 5000 mg/kg b.w.

Acute dermal toxicity: LD₅₀ (rabbit) >5050mg/kg b.w.

Acute inhalation toxicity: LC₅₀ (4hr) >2.0 mg/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: Tebuconazole is not significant carcinogenic; Tebuconazole is classified by EPA as Group C (possible human carcinogen) based on selected animal studies. Liver tumors in mice seen only at a dose exceeding a maximum Tolerated Dose (MTD). Not listed by ACGIH, NTP, IARC, or OSHA.

Reproduction: Not considered primary reproductive toxicants 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 neurotoxicity studies in rats.

Mutagenicity: Negative.

[12. Ecological information]

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

Avian toxicity: Tebuconazole technical

Birds (Bobwhite Quail) LD₅₀ Oral > 5000 mg/kg, Mallard Duck >4816 mg/kg, Japanese quail male 4438 mg/kg, Japanese quail female 2912 mg/kg.

Aquatic organism toxicity: Tebuconazole technical

LC₅₀ to rainbow trout 4.4mg/L (96hr) LC₅₀ to daphnia 4.2mg/L (48hr), LC₅₀ bluegill sunfish 5.7 mg/l

Algae ErC₅₀ (72 hr static) 3.8 mg/l.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds.

Other non-target organism toxicity: Tebuconazole technical

Bees: Bees Oral LD₅₀ (48 hr) 83 ug/bee, Contact LD₅₀ of >200 ug/bee

Worms: 14-day LC₅₀ for tebuconazole in earthworms is 1381 mg/kg dry soil.

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 feces and after three 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 determined.

Environmental Precautions: Do not apply directly to water, or to areas where surface water is present. Do not apply to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters or rinsate.

[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. Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. 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: Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. 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 1/4 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 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.

[14. Transport information]

49CFR

According to national and international transport regulations this material is not classified as dangerous goods/hazardous material.

US DOT (ground) SHIPPING NAME: Not regulated by ground shipment, per 49 CFR Part 172.101(12) (iv). Regulated in bulk containers > 119 gallons (450 liters): UN3082, Environmentally Hazardous Substance, liquid, N.O.S., (Tebuconazole), 9, III Marine Pollutant.

IATA (air) SHIPPING NAME (CARGO AIRCRAFT ONLY): Not regulated by air in non-bulk. Regulated in bulk containers: UN3082, Environmentally Hazardous Substance, liquid, N.O.S., (Tebuconazole), 9, III Marine Pollutant. Use shipping description P001 and LP01.

IMO (water) SHIPPING NAME: UN3082, Environmentally Hazardous Substance, liquid, N.O.S., (Tebuconazole), 9, III Marine Pollutant.

Use packing instruction 914 and maximum gross volume of product is 450 L (119 gals.)

[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:

EPA Reg. No.: 84229-34

EPA Signal word: Caution

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed, absorbed through skin, or inhaled. Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist or vapor. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

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.

PHYSICAL/CHEMICAL HAZARDS

Do not mix or allow to come in contact with oxidizing agents. A hazardous chemical reaction may occur.

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: None.

SARA Title III - section 311/312 - hazard identification

Acute health hazardous

Chronic health hazardous

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

OSHA Hazardous Components: None.

US States Regulatory Reporting

CA Prop65: This product does not contain 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: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information **required by CPR**.

[16. Other information]

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. Tide International USA, Inc. assumes no responsibility for results obtained or for incidental or consequential damages arising from the use of these data.