



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 Propiconazole 41.8%EC Fungicide

Section 1 – Chemical Product and Company Identification

Product name	Tide Propiconazole 41.8%EC 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.	84229-11
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:

- Flammable liquid (Category 3)
- Acute toxicity, Oral (Category 4)
- Eye irritation (Category 2A)
- Skin sensitization (Category 1)
- Acute aquatic toxicity (Category 3)
- Aquatic Chronic (Category 2)

Label elements

HCS labeling

Hazard pictograms (HCS)



*

Signal Word: WARNING



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GHS Hazard Statements:

Flammable liquid and vapour.
Harmful if swallowed
May cause an allergic skin reaction.
Causes serious eye irritation
May cause respiratory irritation
May cause drowsiness or dizziness.
Toxic to aquatic life with long lasting effects

Other hazard information:

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

Signs and Symptoms of Systemic Effects:

Exposure can cause moderate eye or skin irritation. If swallowed, abdominal pain, nausea, gastritis, breathing difficulty, or diarrhea can occur.

Allergic skin reactions are possible.

Exposure to high vapor levels may cause headache, dizziness, numbness, nausea, incoordination, or other central nervous

Environmental hazards: This product is toxic to fish and shrimp. Do not apply directly to water, or to areas where surface water is present, or to inter-tidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

Section 3 - Composition / Information on Ingredients

Active ingredient	CAS No.	Content (w/w,%)	ACIGH TLV
Propiconazole 1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole	60207-90-1	41.8% min.	NA
Calcium dodecyl benzene sulfate	26264-06-2	2.2% max	NA
Propylene glycol	57-55-6	12.0% max	10 mg/m ³ TWA
Butyl alcohol	71-36-3	24.4% max	20 ppm TWA
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: Call a POISON CENTER or doctor/physician if you feel unwell. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control



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center or doctor. Do not give anything by mouth to an unconscious person.

If inhaled: Move person to fresh air. If person is not breathing, call 911 for an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a POISON CENTER or doctor/physician if you feel unwell.

If on skin or clothing: Take off contaminated clothing and wash before reuse. Rinse skin immediately with plenty of water for 15-20 minutes. 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. Get medical advice/attention.

Note to physician: There is no specific antidote. Treat symptomatically. This compound does not cause any definite symptoms that would be diagnostic. Poisoning is accompanied by hyperactivity followed by sedation.

Section 5 – Fire-Fighting Measures

Flashpoint: This product forms flammable mixtures with air at temperatures above 110°F (43°C).

Combustible: Combustible liquid.

Means of Extinction: Foam, Water Spray, Dry chemical, and CO₂.

Hazardous combustion products: Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distant ignition sources and flash back.

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Fire fighting instructions: Use appropriate extinguishing media for combustibles in the area. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

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.

Warning - flammable vapors may be present. Eliminate sources of ignition and ventilate spill area. Use non-sparking clean-up equipment to prevent vapor ignition.

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions in Protective Equipment Section. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place



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into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

Section 7- Handling and Storage

KEEP OUT OF REACH OF CHILDREN!

Handling: Wear protective gloves and eye / face protection. Keep away from heat/sparks/open flames/hot surfaces. –No smoking. Avoid contact with eyes, skin, or clothing. Avoid breathing mist/vapours/spray. Wash thoroughly with soap and water after handling. Wash hands before eating, drinking, chewing, gum, using tobacco or using the toilet. Wash clothing after use. Do not store or consume food or drink, or use tobacco, in areas where they may become contaminated with this material. Avoid release to the environment.

Ground/Bond container and receiving equipment; Use explosion-proof electrical/ventilating/lighting/.../equipment; Use only non-sparking tools; Take precautionary measures against static discharge.

Storage: Keep product in original container. Keep container tightly closed. Keep away from heat/sparks/open flames/hot surfaces. Store in a cool, dry secure and well-ventilated place. Protect from excessive heat. Do not contaminate food or foodstuffs. Do not store or transport near food or feed. Avoid release to the environment.

Section 8 - Exposure Controls/Personal Protection

Exposure limit values

Components.	CAS-No	Control parameters	Basis
Propiconazole	60207-90-1	NA	
Butyl alcohol	71-36-3	100 ppm TWA	OSHA
Propylene glycol	57-55-6	10 mg/m ³	AIHA, TWA

Engineering controls

Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

Personal protection

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate or viton
- Shoes plus socks
- Protective eyewear

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for



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washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

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.

Respiratory Protection: A combination particulate/ organic vapor respirator may be necessary until effective engineering controls are installed to comply with occupational exposure limits. Use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with an HE prefilter.

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



Protective gloves

Eye Protection: Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.



Tightly sealed goggle

Skin and Body Protection: Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

Specific Hygiene Measures: Avoid contact with eyes, skin, or clothing. Avoid breathing mist/vapours/spray. Wash thoroughly with soap and water after handling. Wash hands before eating, drinking, chewing, gum, using tobacco or using the toilet. Wash clothing after use. Do not store or consume food or drink, or use tobacco, in areas where they may become contaminated with this material. 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.



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Section 9 - Physical and Chemical Properties

Appearance: Yellow with a gardner color of 9 liquid

Odor: A pungent odor

Odor threshold: No Data Available

pH: 4.0-7.0

Melting point/freezing point: No Data Available

Initial boiling point and boiling range: >338 ° F (170°C)

Flashpoint: 113°F (45°C).

Evaporation rate: No Data Available

Vapor pressure: 4.2 x 10⁽⁻⁷⁾ mmHg @ 77° F (25° C)

Vapor density: No Data Available

Specific Gravity: 1.07±0.01

Solubility: In water 0.1 g/l @ 68° F (20° C)

Octanol/water partition coefficient: No Data Available

Auto-ignition temperature: No Data Available

Decomposition temperature: No Data Available

Viscosity: 50.59 cps. at 24°C, 23.16 cps. at 37°C

These physical data are typical values based on material test but may vary from sample to sample. Typical values should not 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: Keep away from the incompatibility materials.

Incompatible Materials: None reasonably foreseeable.

Hazardous decomposition products: Can decompose at high temperatures forming toxic gases.

Section 11 - Toxicological Information

Exposure routes: Eyes, skin, ingestion & inhalation.

Toxicity

Acute oral toxicity LD₅₀ for female rat 1080mg/kg, male rat 2330mg/kg

Acute dermal toxicity LD₅₀ for rabbits >2000mg/kg

Acute inhalation toxicity LC₅₀ (4h) >5.0mg/L

Skin irritation No irritating to rabbit

Eye irritation Irritating to eyes



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Sensitization

Skin sensitization (guinea pig).

Chronic Toxicity: Propiconazole technical has been extensively tested on laboratory mammals and in test-tube systems. No evidence was obtained of mutagenic, carcinogenic, teratogenic neurotoxic or reproductive effects.

Carcinogenicity: Not carcinogenic (rat); Not listed by ACGIH, NTP, IARC, or OSHA. Increased incidence of liver tumors at extremely high doses (male mice).

Reproduction: Not teratogenic in animal experiments.

Developmental Toxicity:

Reproduction target/critical effect: Reduced pup weight at parentally toxic dose

Lowest relevant reproductive NOAEL: 100ppm, equivalent to 7mg/kgbw per day (rat)

Developmental target/critical effect: Skeletal variations

Lowest relevant developmental NOAEL: 30mg/kgbw per day (rat)

Neurotoxicity: No evidence of neurotoxicity.

Mutagenicity: Negative

Section 12 - Ecological Information

Ecotoxicity:

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

Avian toxicity: Propiconazole technical

Practically non-toxic. Acute oral LD50 : 1 839 mg/kg (Japanese quail)

Aquatic organism toxicity: Propiconazole technical

LC₅₀ (96 h): 12.15 mg/l for rainbow trout (96h)

EC₅₀: 42.85 mg/l for daphnia magna (48h).

Other non-target organism toxicity: Propiconazole technical

Bees: LC50/EC50 > 25 ug/bee

Invertebrates (Water Flea) LC50/EC50 3.2 - 10.2 ppm

Worms: Low toxicity to *Eisenia foetida*. LC50 (7d): 640 mg/kg. LC50 (14d): 608 mg/kg.

Other beneficial spp.: No significant effect on soil micro-organisms, nitrogen fixation or root nodulation.

Persistence/Degradability: Not persistent in soil.

Bioaccumulative potential: Low bioaccumulation potential.

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

Other adverse effects: Stable in water. Sinks in water (after 24 h)

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.



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Pesticide disposal: Pesticide wastes are toxic. 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: Nonrefillable container. Do not reuse or refill this container. Completely empty container into application equipment. Then dispose of container 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

D.O.T. Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, FLAMMABLE LIQUID, N.O.S. (Contains Butyl alcohol)
Technical Shipping Name:	Tide Propiconazole 41.8%EC Fungicide
Packing Group:	III
D.O.T. Hazard Class:	3
U.N./N.A. Number:	UN1993
Marine Pollutant *:	See special Note

* SPECIAL NOTE: LIMITED QUANTITIES

If this product is shipped in inner packages containing less than 5L (1.3 gallons) of product, the following applies:

As per US-DOT: 49CFR172.322(d)(2)(i)

The MARINE POLLUTANT mark is not required on a combination packaging containing a marine pollutant, other than a severe marine pollutant, in inner packaging each of which contains 5L (1.3 gallons) or less net capacity for liquid.

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

WARNING

Causes substantial but temporary eye injury. Do not get in eyes, on skin, or on clothing. Harmful if swallowed, inhaled, or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid breathing spray mist.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and shrimp. Do not apply directly to water, or to areas where surface



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water is present, or to inter-tidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

PHYSICAL OR CHEMICAL HAZARDS

Combustible. Do not use, pour, spill, or store near heat or open flame.

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

Propiconazole (41.8%) (CAS No. 60207-90-1)

Tert-butyl alcohol (CAS No. 71-36-3)

SARA Title III - section 311/312 - hazard identification

Acute health hazardous

Chronic health hazardous

Fire Hazardous

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.

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.

US State right-to-know ingredients

Calcium dodecylbenzene sulfonate CAS#: 26264-06-2 CA, CT, IL, NJ, PA

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.

Environmental

CERCLA

Calcium dodecylbenzene sulfonate CAS#: 26264-06-2 1,000 lbs

Tert-butyl alcohol CAS No. 71-36-3 5000lbs final RQ ; 2270 kg final RQ

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:



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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# TIC-FUN8422911

Created date: 11/17/2014

Update date: 03/16/2015

Revised for:

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.