



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

REVISION DATE: 08/24/2021 VERSION 3.0

[1. Identification]

Product name: Tide Triadimefon 43 SC
Chemical name: 1-(4-chlorophenoxy)-3,3-dimethyl-1-(1*H*-1,2,4-triazol-1-yl)-2-butanone
Chemical family: Triazole
EPA Reg. No.: 84229-55
Recommended Use: Azole fungicide
Supplier: Tide International USA, Inc.
21 Hubble, Irvine, CA 92618
1-949-679-3535
For medical or chemical* emergencies: Call CHEMTREC®: 1-800-424-9300 (24 hours/day)
*Spill, leak, fire, exposure or accident
For non-emergency product 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)

Classification of the substance or mixture:

Acute Oral (Category 4)
Acute Inhalation (Category 4)
Acute aquatic toxicity (Category 2)

GHS pictograms



Signal Word: WARNING

GHS Hazard Statements:

H302 Harmful if swallowed
H332 Harmful if inhaled.
H401 Toxic to aquatic life

Precautionary Statements:

Prevention:

P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P261 Avoid breathing mist and spray.
P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment not in accordance with the product label.

Response:

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor/if you feel unwell.

Disposal:

P501 Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

Routes of exposure: Eyes, skin, ingestion & inhalation.

Hazards not otherwise classified:

None known

[3. Composition / Information on Ingredients]

According to Hazard Communication Standard (HCS) or 29 CFR §1910.1200 (2012).

Active ingredient	CAS No.	Content (w/w,%)	ACGIH
Triadimefon	43121-43-3	43.0% min.	NA
Other ingredients	-	Balance	NA

*Ingredients not specifically listed are to be considered proprietary or confidential business information per 29 CFR 1910.1200(i)

[4. First aid measures]

If poisoning occurs, immediately contact a doctor or Poisons Information Centre, and follow the advice given. Show this Material Safety Data Sheet to the doctor.

If swallowed:

Immediately 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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.

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 physician or poison control center immediately.

If on skin or clothing:

Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a poison control center or doctor for further treatment advice.

If inhaled:

Move person to fresh air. 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.

Most important symptoms/effects, acute and delayed:

Symptoms: The compound does not cause any definite symptoms that would be diagnostic. Poisoning is accompanied by hyperactivity followed by sedation.

Note to physician:

Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

[5. Fire-Fighting measures]

NFPA Ratings: Health-2 Flammability-1 Instability-0

Suitable extinguishing media: Water; Carbon Dioxide; Dry Chemical; Foam.

Unsuitable extinguishing media: No data available

Special hazards arising from the chemical (hazardous combustion products): Dangerous gases are evolved in the event of a fire.

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

Advice for firefighters: Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. 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.

Methods and materials for containment and cleaning up:

Method 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.

Reference to other sections:

Information regarding safe handling ,see section 7.

Information regarding personal protective equipment, sees section 8.

Information regarding waste disposal, see section 13.

[7. Handling and Storage]

Precautions for 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. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Conditions for safe storage: 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.

[8. Exposure controls / Personal protection]

Control parameters:

Components.	CAS-No	Control parameters	Basis
Triadimefon	43121-43-3	NA	TWA OSHA/ACGIH
Propylene glycol	57-55-6	10 mg/m ³	TWA

Appropriate engineering controls:

Control process conditions to avoid contact. Work in a well-ventilated area only.

Individual protection measures, such as personal protective equipment (PPE)

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:

Safety glasses with side-shields.

Skin protection:

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

[9. Physical and chemical properties]

Appearance: Light yellow suspension liquid

Odor: characteristic

Odor threshold: No Data Available

pH: 6.0-9.0

Melting point/freezing point: No Data Available.

Initial boiling point and boiling range: No Data Available.

Flashpoint: > 100 °C. No flash point - Determination conducted up to the boiling point.

Evaporation rate: No Data Available.

Flammability: No Data Available.

Upper/lower flammability or explosive limits: N/A.

Vapor pressure: No Data Available.

Vapor density: No Data Available

Density: 1.16g/ml (20 °C)

Solubility: No Data Available.

Octanol/water partition coefficient: No Data Available.

Auto-ignition temperature: No Data Available

Decomposition temperature: No Data Available

Viscosity: 400 - 2000 cps

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.

[10. Stability and reactivity]

Reactivity: Product will not undergo polymerization

Chemical Stability: Stable under normal use and storage conditions.

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

Conditions to avoid: Extremes of temperature and direct sunlight..

Incompatible Materials: no data available.

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

[11. Toxicological information]

Exposure routes: Eyes, skin, ingestion & inhalation.

Toxicity

Acute toxicity

Acute oral (rats): LD₅₀ 1750 mg/kg b.w.

Acute dermal (rabbits): LD₅₀ for rats >5000 mg/kg b.w.

Acute inhalation (Rats): LC₅₀ (4 h) for rats >2.1 mg/L (concentration limit)

Acute eye irritation (rabbits): Mild eye irritation.

Acute dermal irritation (rabbits): Slight irritation.

Skin sensitization (guinea pig): Non-sensitizing.

Carcinogenicity: Triadimefon was not carcinogenic in a lifetime feeding study in rats. Triadimefon caused an increased incidence of tumours in mice in the following organ(s): liver. The mechanism that triggers these tumours is not relevant to humans.

EPA: Group C - possible human carcinogen (triadimefon)

ACGIH: not listed

NTP: not listed

IARC: not listed

OSHA: not listed

Reproductive/Developmental effects: Triadimefon caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. Triadimefon caused reduced fertility a reduced pup survival. Triadimefon caused developmental toxicity in only at dose levels toxic to the dams. Triadimefon caused an increased incidence of non-specific malformations.

Mutagenicity

Triadimefon was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Chronic/Subchronic effects: No data available.

Neurotoxicity: No data available.

[12. Ecological information]

Ecotoxicity

Birds: No data available.

Fish: LC₅₀ (96 h) for Rainbow trout (*Oncorhynchus mykiss*) 4.08 mg/l. The value mentioned relates to the active ingredient triadimefon.

Daphnia: EC₅₀ (48 h) for Water flea (*Daphnia magna*) 7.16 mg/l. The value mentioned relates to the active ingredient triadimefon.

Algae: LC₅₀ (120 h) for *Pseudokirchneriella subcapitata* 2.01 mg/l. The value mentioned relates to the active ingredient triadimefon.

Persistence/Degradability: not rapidly biodegradable.

Bioaccumulative potential: Bioconcentration factor (BCF) 31; Does not bioaccumulate.

Mobility in soil: Moderately mobile in soils.

Environmental Precautions: Do not allow to get into surface water, drains and ground water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Do not apply when weather conditions favor runoff or drift. Apply this product as specified on the label.

[13. Disposal considerations]

Dispose of contents and container in accordance with local regulations.

Waste Disposal:

Follow container label instructions for disposal of wastes generated during use in compliance with the

product label. Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Do not re-use empty containers. Triple rinse containers. 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.

[14. Transport information]

US DOT

Not dangerous goods / not hazardous material

IMDG

UN number:	3082
Class:	9
Packing Group:	III
Marine pollutant	No
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(TRIADIMEFON SOLUTION)

IATA

UN number:	3082
Class:	9
Packing Group:	III
Environm. Hazardous Mark	No
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(TRIADIMEFON 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.

Freight Classification	INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN POISON
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[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.: 84229-55

EPA Signal word: Caution

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

This product may contaminate water through runoff. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product.

Groundwater Advisory: This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. **DO NOT** make applications when weather conditions favor drift from target area.

DO NOT apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwater or rinsate.

DO NOT apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to organisms in neighboring areas.


US Federal Regulations:

SARA Title III-Section 313-toxic chemical release reporting:

Triadimefon 43121-43-3 25,000lbs

US States Regulatory Reporting:

CA Prop65

 **WARNING:** This product can expose you to a chemicals including triadimefon, which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

US State right-to-know ingredients:

Triadimefon	43121-43-3	NJ
Propylene glycol	57-55-6	NJ, PA
1,2-Benzisothiazol-3(2H)-one	2634-33-5	PA, MA

CAS# 1302-78-9 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

International Regulations:

European Inventory of Existing Commercial Substance (EINECS):

Triadimefon 43121-43-3

[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 this data.