

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name : Tebuconazole 98% TC
Chemical Name : 1-(4-chlorophenyl)-4,4-dimethyl-3-(1,2,4-triazol-1-ylmethyl)pentan-3-ol
Type : Fungicide
Molecular formula : C₁₆H₂₂ClN₃O

2. Composition / Information on ingredients

Chemical Name	CAS#	Percent or content (w/w)
Tebuconazole	107534-96-3	98 %
Inert ingredients	-	2.0%

3. Health Hazards Identification

Main hazards:

the product may be toxic to men and to the environment if not used as recommended.

Product Effects:

Adverse health effects to man: It may cause skin, eyes and respiratory irritation.

Environmental Effects: It is toxic to aquatic microorganisms, algae, fish, bees and fauna.

Specific hazards: There are no other hazards related to the product.

Main Symptoms:

High concentration inhalation may cause nasal, throat and respiratory tracts irritation. The ingestion of large amounts may cause abdominal discomfort or pain, nausea, vomiting, dizziness and blurred vision

4. First Aid Measures

First Aid Measures:

Remove to fresh air. Remove all contaminated clothing and wash the affected parts of the body thoroughly with plenty of water and soap during 30 minutes. If victim is unconscious and not breathing, apply artificial respiration or oxygenation. Take victim to the nearest medical care center with this sheet Remove to fresh air. If stop breathing, apply artificial respiration. If breathing is difficult, immediately call a physician.

Skin contact:

Immediately wash with water and soap during 30 minutes after removing contaminated clothing. In case of effects/symptoms, call a physician. Wash the contaminated clothing prior to reuse them and dispose contaminated shoes.

Eyes contact:

Immediately flush with running water for at least 30 minutes. Call a physician.

Ingestion:

Do not induce vomiting, but do not stop if it happens spontaneously. Immediately call a physician.

Actions to be avoided:

Do not apply mouth to mouth respiration if the patient has swollen the product. Give artificial respiration.

Protection for the first aid givers:

Avoid skin or inhalation contact with the product during the process.

Notes for the physician:

No specific antidote is available. If large amount was swallowed, gastric emptying procedures as gastric lavage may be performed, taking great care to avoid pulmonary aspiration due to the risk of chemical pneumonite. Activated charcoal and saline laxatives may be administered due to probable active ingredients adsorption to activated charcoal. Symptomatic treatment must include, specially, support measures as the correction of hydro electrolytic and metabolic disorders, as well as respiratory aid. The management of hepatic and renal functions must be kept. If in eye, rinse with physiological saline followed by occlusion and lead to ophthalmic evaluation.

5. Fire Fighting Measures

FLASHPOINT (method): None

FIRE AND EXPLOSION HAZARD: Minimize use of water to prevent environmental contamination.

EXTINGUISHING MEDIA: Use carbon dioxide, foam, dry chemical or water spray when fighting fires involving this material.

FIREFIGHTING INSTRUCTIONS: Evacuate area and fight fire from a safe distance. Approach from upwind to avoid hazardous vapors and decomposition products. Fire exposed containers can build up pressure and should be kept cool with water spray if possible. Explosive vapor could form from ruptured containers. Foam fire extinguishing system is preferred to prevent environmental damage from excessive water run off. If water is used, avoid heavy hose streams. If possible, dike and collect water used to fight fire to prevent minimize run off.

FIREFIGHTING EQUIPMENT: Self-contained breathing apparatus with full face piece. Wear full firefighting turn-out gear (Bunker gear).

HAZARDOUS COMBUSTION PRODUCTS: CO₂, Phosphorus oxides and Nitrogen

6. Accidental Release Measures

Personal precautions: Wear waterproof overalls, safety goggles, rubber boots and nitril rubber or PVC gloves. Respiratory protection must be used depending on the concentrations in the environment or on the extension of the spill/release. In this case, choose self-contained breathing apparatus.

Removal of ignition sources: Stop electric energy and turn off the sources that may produce sparks. Remove all the material that may start a fire (e.g. spilled diesel oil).

Dust control: Isolate and signal the contaminated area. Cover the spill with plastic sheet or spray water on the powder.

Inhalation, skin, mucous membrane and eyes contact prevention: Wear the garments and accessories described above.

Environmental precautions: Avoid contamination of surface waters sealing the entrance of the rain water galleries (culverts). Do not allow the residues of the released product reach water collections.

Cleaning methods: Stop and collect the spill. Put the residues into a recipient for disposal according to the local regulations. Clean, preferably with a detergent; avoid using solvents.

Secondary hazards prevention: Do not allow the product contaminate creeks, lakes, water fountains, wells, sewers, pluvial sewers and effluents.

7. Handling and Storage

Handling : Use appropriate (impervious) clothing, gloves and closed foot ware to prevent the repeated contact with skin. Use flash proof and dust resistant goggles to prevent the contact with eyes.

Storage : Keep the product in original container tightly closed and correctly labeled. Store in suitable, cool, dry, well ventilated place under lock and key; away from the reach of the children, animals, food and animal feeding stuffs. Store away from the incompatible substances and source of ignition.

8. Exposure Controls/Personal Protection

Technical protective measures : None

Exposure controls limits : Not Established

Respiratory protection : Wear suitable mask

Hand protection : Wear impervious gloves

Eye protection : Wear flash proof and dust resistant goggles.

Skin protection : Wear impervious clothing and closed foot ware

9. Physical and Chemical Properties

Color: White to yellow powder

Odor: Weak

Melting point: 102.4°C

Upper/lower explosion limits: The product is not explosive

Density: 1.25 (26°C)

Solubility: At 20°C; in water 0.036 g/l; in n-hexane < 0.1 g/L, in dichloromethane > 200 g/L; 2-propanol, toluene 50-100 g/L.

Partitioning coefficient oil/water: Kow Log P = 3.7 (20°C)

10. Stability and Reactivity

Stability: Stable under normal temperatures and pressures.

Stability conditions to avoid: Excess heat, and incompatible materials.

Incompatibilities with other material: None reasonably foreseeable

Hazardous Decomposition products: Under fire conditions may produce gases such as oxides of carbon, hydrogen, nitrogen and sulfur

11. Toxicological Information

Acute toxicity: Oral LD50 in rats: > 2,000 mg/kg

Dermal LD50 in rats: > 2,000 mg/kg

Inhaling LC50: > 2.04 mg/L

Local Effects: Skin irritation in rabbits: The product is considered none irritating.

Eye irritation rabbits: The product is considered none irritating

12. Ecological Information

Disposal Instructions

All wastes must be handled in accordance with local, state and federal regulations. Material can be converted to a less hazardous material by weak reducing agents followed by neutralization.

US EPA Waste Number & Descriptions A: General Product Information

Not applicable. B: Component Waste Numbers No EPA Waste Numbers are applicable for this compound.

13. Disposal Considerations

Treatment and disposal methods: Product: Inactivate the product through incineration in ovens designed to this kind of operation, equipped with chambers to wash effluent gases that are according to the competent authority regulations. Product residues: Keep eventual residues of the product and/or products with expiration date expired in their original packaging, duly closed. Used packaging: The empty packaging must be stored in a covered, ventilated place, protected from the rain and with waterproof floor, as well as contention dikes. Wear gloves when handling these packaging. The final destination of empty packaging can only be done by registering Company or user company or companies legally authorized by the competent authorities. The reuse of the empty packaging is forbidden for the user. They may be recycled if appropriate legislation is obeyed.

14. Transport Information

Product Name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Tebuconazole technical)
UN No.	:	3077
UN Hazard Class	:	9
UN Packing Group	:	III
Marine Pollutant status	:	YES
EMS	:	F-A, S-F

15. Regulatory Information

Contains : Tebuconazole Technical (CAS No. 107534-96-3)
Product Classification
Acute : Yes
Chronic : No
Fire : No
Reactivity : No
Pressure Generating : No
NFPA Codes
Health : 1
Flammability : 0
Reactivity : 0

Regulatory Status : The product is meant for the production of fungicide formulations which may only be used for the applications that are registered for, in accordance with an officially approved label

16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

Date: 15.06.2020