

MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name: Offset™ 3.6F Fungicide

EPA Reg. No.: 83100-1-83979

Product Code: RTFF-020

Corporate Contact: 1- 305-559-2221

Emergency number for spills and cleanup: CHEMTREC: 1-800-424-9300

Chemical Name of Active Ingredient (IUPAC):

(RS)-1-*p*-chlorophenyl-4,4-dimethyl-3-(1*H*-1,2,4-triazol-1-ylmethyl)pentan-3-ol

Chemical Formula of Active Ingredient: C₁₆H₂₂ClN₃O

CAS/EU Registry Number of Active Ingredient:

107534-96-3 (CAS); 403-640-2 (EEC); 494 (CIPAC)

Section 2. Composition/Information on Ingredients

Component	CAS Number	Content (%)
Tebuconazole	107534-96-3	38.7
Inert Ingredients	Proprietary	61.3

Section 3. Hazards Identification

CAUTION: Harmful if swallowed, inhaled or absorbed through the skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Avoid contact with skin, eyes, and clothing. Avoid breathing vapor or spray mist.

Section 4. First Aid Measures

If Swallowed: Call a poison control center or doctor for treatment advice. Do not induce vomiting unless told to do so by the poison control center or doctor. Have person sip a glass of water if able to swallow. 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 poison control center or doctor for further treatment advice.

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 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 mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

Note to Physician: The compound does not cause any definite symptoms that would be diagnostic. No specific antidote. Treat symptomatically.

For information on this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378 or a poison control center for assistance.

Section 5. Fire Fighting Measures

Fire and Explosive Hazard: Negligible fire and explosion hazard. Non-flammable under normal conditions of use.

Firefighting Media: Water fog or foam, CO₂ to extinguish fire.

Firefighting Precaution: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Keep unnecessary people away. Dike area of fire to prevent material run-off. Decontaminate emergency personnel with soap and water before leaving the fire area. Avoid breathing dusts, vapors and fumes from burning materials. Control run-off water.

Section 6. Accidental Release Measures

In case materials are released, contact emergency response personnel. Keep unnecessary persons away. Prevent spill from spreading or entering waterways or drains. Take up with absorbent material such as sawdust, peat or binding agent for chemicals. Fill material along with any contaminated soil etc. into sealable containers. Clean affected area with an aqueous detergent and a small amount of water. Absorb this with hydrated lime and place in a sealable drum. On completion of clean up, remove and wash all protective clothing and equipment with detergent and water. Any heavily contaminated clothing should be placed in a plastic garbage bag and placed in a sealable drum. Do not smoke, eat or drink during the clean-up operation. Use suitable protective equipment (Section 8). Follow all fire prevention procedures (Section 5).

Section 7. Handling and Storage

Handling Precautions: Do not get in eyes, on skin, or on clothing. Avoid breathing vapors or spray mist. Clean applicator and measuring equipment before using with other products and dispose of wash water where it will not contaminate crops, grazing, rivers and dams. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash thoroughly after handling.

Storage Precautions: Keep out of reach of children. Store in the tightly closed original container in a dry, well-ventilated area, as cool as possible. Do not store for prolonged periods in direct sunlight. Do not store near any material intended for use or consumption by humans or animals.

Section 8. Exposure Controls/Personal Protection

Engineering Controls: Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust or process enclosure ventilation system.

Eye/Face: To protect against accidental eye contact, goggles/face-shield should be worn.

Skin Protection: Rubber gloves should be worn. Wash thoroughly with soap and water after handling.

Respiratory Protection: Ensure good ventilation. For maximum protection, wear a supplied air, full-facepiece respirator, air lined hood, or full-facepiece self-contained breathing apparatus.

Section 9. Physical and Chemical Properties

Appearance	Off-white viscous liquid
Odor	Characteristic weak smell
Density	Approx. 1.12 g/ml at 20°C (1.094 lb/gal)
Water Solubility	Disperse in water

Section 10. Stability and Reactivity

Stability: Stable under normal handling and storage conditions.

Incompatibilities: Avoid mixing with strong acid/alkaline, strong oxidizing agent and reducing agent.

Hazard Decomposition: In the event of fire, the formation of hydrogen chloride, hydrogen cyanide, carbon monoxide and nitrogen oxides must be anticipated.

Hazard Polymerization: Will not occur.

Section 11. Toxicological Information

Acute Oral Toxicity:	LD50 for rats >5000 mg/kg
Acute Dermal Toxicity:	LD50 for rats >5050 mg/kg
Acute Inhalation Toxicity:	LC50 (4h) for rats > 5.13g/L
Skin Irritation:	Non-irritating to skin of rabbits.
Eye Irritation:	Non-irritating to eyes of rabbits.

Section 12. Ecological Information

Do NOT contaminate ponds, waterways or drains with the chemical or used container. Referenced technical active ingredient ecological information list as below:

Birds	Acute oral LD50 for male Japanese quail 4438, female Japanese quail 2912, bobwhite quail 1988 mg/kg b.w. Dietary LC50 (5 d) for mallard ducks >4816, bobwhite quail >5000 mg/kg feed.
Fish	LC50 (96 h) for rainbow trout 4.4, bluegill sunfish 5.7 mg/l (flow through).
Bee	LD50 (48 h) (oral) 175.8 µg/bee; (contact) 0.6 µg/bee.
Environmental Fate:	
Animals	After three days, elimination was almost complete (>99%). Tebuconazole was excreted with the urine and the feces.

Plants Metabolism studies on wheat, grapes and peanuts show that tebuconazole is the major terminal residue. The metabolites detected were mainly triazole-containing compounds of no toxicological relevance. In plant tissue, a mean half-life of 12 days could be derived (cereals).

Soil/Environment:

The degradation of tebuconazole in soil was slow in laboratory studies. Under field conditions, the compound degraded much more rapidly, and did not accumulate in long-term studies (3-5 y). Since no residues could be detected in deeper soil layers of these and other studies, and adsorption/desorption studies indicated a low mobility in the soil, groundwater contamination through leaching can be excluded. In natural waters, hydrolysis and indirect photolysis occur; in a pond study, the compound dissipated from the water body with DT₅₀ 1-4 w. Low vapor pressure and strong adsorption result in low volatilization into the air.

Section 13. Disposal Considerations

Disposal of product would be treated, stored, transported, and disposed of according to the local waste regulation authority. Do not flush to surface water or sanitary sewer system.

Section 14. Transport Information

US DOT Classification: Not Regulated - 49 CFR (DOT)

B/L Freight Classification: Item 102120 [Insecticides, Fungicides, Insect or Animal Repellents] Class 60

IMO Classification: Not regulated. This product is not subject to IMO/IMDG.

IATA Classification: Not regulated. This product is not subject to IATA.

Section 15. Regulatory Information

USEPA Registered Company Address:
Rotam North America, Inc., 660 Newtown-Yardley Road, Newtown, PA 18940

Product Signal Word: CAUTION

European/International Regulation:

Hazard Symbols:

N Dangerous to environment.

Risk Phrases:

R22 Harmful if swallowed.

Safety Phrases:

S2 Keep out of reach of children.
S13 Keep away from food, drink and animal feeding stuffs.
S24/25 Avoid contact with skin and eyes.
S36/37 Wear suitable protective clothing and gloves.
S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Section 16. Other Information

Disclaimer: The information provided by Rotam North America, Inc. contained herein is given in good faith and to the best of our knowledge. However, no warranty is expressed or implied.

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