

Safety Data Sheet

TRINITY TR

Revision date : 2012/05/17
Version: 1.0

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(30569319/SDS_CPA_US/EN)

1. Product and Company Identification

Company
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information
CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Registrant:
Whitmire Micro-Gen Research Laboratories, Inc.
3568 Tree Court Industrial Blvd.
St. Louis, MO 63122

Substance number: 000000546401
Synonyms: Triconazol

2. Hazards Identification

Emergency overview

CAUTION:
FLAMMABLE LIQUID.
KEEP OUT OF REACH OF CHILDREN.
Wash thoroughly after handling.
Aerosol container contains flammable gas under pressure.

See Product Label for additional precautionary statements.

State of matter: liquid
Colour: straw yellow
Odour: characteristic, of the solvent contained in the product

Potential health effects

Primary routes of exposure:

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Relatively nontoxic after single ingestion. Relatively nontoxic after short-term inhalation. Relatively nontoxic after short-term skin contact.

Irritation / corrosion:

May cause moderate but temporary irritation to the eyes. May cause moderate irritation to the skin.

Sensitization:

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Skin sensitizing effects were not observed in animal studies.

3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
131983-72-7	10.5 %	Triticonazole
	89.5 %	Proprietary ingredients

4. First-Aid Measures

General advice:

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

If inhaled:

Remove the affected individual into fresh air and keep the person calm.

If on skin:

Rinse skin immediately with plenty of water for 15 - 20 minutes.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

If swallowed:

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting. Have person sip a glass of water if able to swallow.

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Flash point: approx. 91 °C Information applies to the solvent.
Flammability: not readily ignited
Self-ignition temperature: not self-igniting

Suitable extinguishing media:

foam, dry powder, carbon dioxide

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, halogenated compounds
The substances/groups of substances mentioned can be released in case of fire. Aerosol container contains flammable gas under pressure. Risk of explosion at excessive temperatures.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

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6. Accidental release measures

Personal precautions:

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions:

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water. A spill of or in excess of the reportable quantity requires notification to state, local and national emergency authorities. This product is regulated by CERCLA ('Superfund').

Cleanup:

Dike spillage. Pick up with suitable absorbent material. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Handling

General advice:

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect against heat. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Provide means for controlling leaks and spills. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

Aerosol container contains flammable gas under pressure. The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme heat. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Storage

General advice:

Protect containers from physical damage. Store in a cool, dry, well-ventilated area. Avoid all sources of ignition: heat, sparks, open flame.

Storage incompatibility:

General advice: Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Storage stability:

May be kept indefinitely if stored properly. If an expiry date is mentioned on the packaging/label this takes priority over the statements on storage duration in this safety data sheet.

Temperature tolerance

Protect from temperatures above: 130 °F
Explosive at or above indicated temperature.

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8. Exposure Controls and Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	liquid	
Odour:	characteristic, of the solvent contained in the product	
Colour:	straw yellow	
pH value:	approx. 5.1	(22 °C)
Density:	approx. 1.07 g/cm ³	(20 °C)
Partitioning coefficient n-octanol/water (log Pow):		not applicable
Viscosity, dynamic:	approx. 4.18 mPa.s	(19.4 °C)
Solubility in water:		slightly soluble

10. Stability and Reactivity

Conditions to avoid:

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Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

Substances to avoid:

No substances known that should be avoided.

Hazardous reactions:

The product is chemically stable.

Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off.

Thermal decomposition:

Possible thermal decomposition products:

carbon monoxide, carbon dioxide

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To avoid thermal decomposition, do not overheat.

Corrosion to metals:

No corrosive effect on metal.

Oxidizing properties:

not fire-propagating

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50
Species: rat (female)
Value: > 5,000 mg/kg

Inhalation:

Type of value: LC50
Species: rat (male/female)
Value: > 2.15 mg/l
Exposure time: 4 h

Dermal:

Type of value: LD50
Species: rat (male/female)
Value: > 5,000 mg/kg

Irritation / corrosion

Skin:

Species: rabbit
Result: moderately irritating

Eye:

Species: rabbit
Result: Minimally irritating.

Sensitization:

Buehler test
Species: guinea pig
Result: Non-sensitizing.

Genetic toxicity

Information on: Triticonazole

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No mutagenic effect was found in various tests with microorganisms and mammalian cell culture.

Information on: N-Methylpyrrolidone

The substance was not mutagenic in bacteria. No mutagenic effect was found in various tests with mammalian cell culture and mammals.

Carcinogenicity

Information on: Triticonazole

In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.

Information on: N-Methylpyrrolidone

In long-term animal studies in which the substance was given by inhalation, a carcinogenic effect was not observed. In long-term studies in rats in which the substance was given by feed, a carcinogenic effect was not observed. In long-term studies in rodents exposed to high doses, a tumorigenic effect was found; however, these results are thought to be due to a rodent-specific liver effect that is not relevant to humans. The whole of the information available provides no indication of a carcinogenic effect.

Reproductive toxicity

Information on: Triticonazole

Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Information on: N-Methylpyrrolidone

As shown in animal studies, the product may cause damage to the testes after repeated high exposures that cause other toxic effects.

Development:

Information on: Triticonazole

Causes developmental effects in animals at high, maternally toxic doses.

Information on: N-Methylpyrrolidone

The substance caused malformations/developmental toxicity in laboratory animals.

12. Ecological Information

Fish

Information on: Triticonazole

Acute:

EPA 72-1 Flow through.

Oncorhynchus mykiss/LC50 (96 h): > 3.6 mg/l

EPA 72-1 Flow through.

Lepomis macrochirus/LC50 (96 h): > 8.9 mg/l

Information on: N-Methylpyrrolidone

Acute:

static

Salmo gairdneri, syn. O. mykiss/LC50 (96 h): > 500 mg/l

The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates

Information on: Triticonazole

Acute:

OECD Guideline 202, part 1 static

Daphnia magna/EC50 (48 h): 9 mg/l

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Information on: N-Methylpyrrolidone

Acute:

DIN 38412 Part 11 static

Daphnia magna/EC50 (24 h): > 1,000 mg/l

The details of the toxic effect relate to the nominal concentration.

Aquatic plants

Information on: Triticonazole

Toxicity to aquatic plants:

other swollen duckweed/EC50 (14 d): 1.1 mg/l

OECD Guideline 201 green algae/EC50 (96 h): > 1 mg/l

Information on: N-Methylpyrrolidone

Toxicity to aquatic plants:

DIN 38412 Part 9 green algae/EC50 (72 h): > 500 mg/l

The details of the toxic effect relate to the nominal concentration.

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Do not cut, puncture, crush, or incinerate empty aerosol containers. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Empty aerosol cans may meet the definition of RCRA D003. Consult local and/or regional EPA for further guidance.

14. Transport Information

Reference Bill of Lading

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US blocked / not listed

Crop Protection TSCA, US released / exempt

OSHA hazard category: Chronic target organ effects reported; Combustible Liquid

EPCRA 311/312 (Hazard categories): Chronic; Fire

EPCRA 313:

CAS Number

872-50-4

Chemical name

N-Methylpyrrolidone

CERCLA RQ

CAS Number

Chemical name

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100 LBS 115-10-6 dimethyl ether

State regulations

CA Prop. 65:

THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

16. Other Information

Refer to product label for EPA registration number.

Recommended use: fungicide

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

MSDS Prepared by:

BASF NA Product Regulations
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MSDS Prepared on: 2012/05/17

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