We create chemistry

Safety Data Sheet
Trinity TR Total Release Fungicide

1. Identification

Product identifier used on the label

Trinity TR Total Release Fungicide

Recommended use of the chemical and restriction on use

Recommended use*: crop protection product, fungicide
Recommended use*: fungicide

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

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

Telephone: +1 973 245-6000

Emergency telephone number

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

Other means of identification

Substance number:	546401
Registration number:	EPA Registration number: 499-555
Synonyms:	Triticonazole

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

STOT RE	2	Specific target organ toxicity — repeated exposure

Repr.	1B (unborn child)	Reproductive toxicity
STOT SE	3 (irritating to respiratory system)	Specific target organ toxicity — single exposure
Aquatic Acute	2	Hazardous to the aquatic environment - acute
Acute Tox.	4 (Inhalation - mist)	Acute toxicity
Flam. Aerosol	1	Flammable aerosols
Aquatic Chronic	2	Hazardous to the aquatic environment - chronic

Label elements

Pictogram:

Signal Word:
Danger

Hazard Statement:

H222	Extremely flammable aerosol.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360	May damage the unborn child.
H373	May cause damage to organs (Liver, Adrenal gland) through prolonged or repeated exposure.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves, protective clothing and eye protection or face protection.
P260	Do not breathe dust/gas/mist/vapours.
P201	Obtain special instructions before use.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P202	Do not handle until all safety precautions have been read and understood.

Precautionary Statements (Response):

P312	Call a POISON CENTER or physician if you feel unwell.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P313	IF exposed or concerned: Get medical attention.
P391	Collect spillage.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P410 + P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C/ 122°F.
P405	Store locked up.

Precautionary Statements (Disposal):

P501 Dispose of contents/container in accordance with local regulations.

Hazards not otherwise classified

Labeling of special preparations (GHS):
The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 1 % Inhalation - vapour
The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 1 % Inhalation - mist

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Triticonazole
CAS Number: 131983-72-7
Content (W/W): 10.5 %
Synonym: Triticonazole

N-Methylpyrrolidone
CAS Number: 872-50-4
Content (W/W): 25.0 - 50.0%
Synonym: 1-Methyl 2-pyrrolidinone; N-Methylpyrrolidone

4. First-Aid Measures

Description of first aid measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention.

If on skin:
Immediately wash thoroughly with soap and water, seek medical attention.

If in eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If swallowed:
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed

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

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
foam, dry powder, carbon dioxide

Special hazards arising from the substance or mixture

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.

Advice for fire-fighters

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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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').

Methods and material for containment and cleaning up

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

Precautions for safe handling

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.

Conditions for safe storage, including any incompatibilities
Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

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

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

8. Exposure Controls/Personal Protection

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

No substance specific occupational exposure limits known.

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:	aerosol
Odour:	characteristic, of the solvent contained in the product
Odour threshold:	Not determined due to potential health hazard by inhalation.
Colour:	straw yellow
pH value:	approx. 4 - 6 (22 °C)
Melting point:	approx. -141 °C Information applies to the propellant.
Boiling point:	approx. -24.8 °C Information applies to the propellant.
Flash point:	approx. -41 °C Information applies to the propellant.
Flammability:	not applicable
NFPA 30B flammability:	Level 2 Aerosol
Flammability of Aerosol Products:	extremely flammable
Lower explosion limit:	1.3 %(V) Information applies to the propellant.
Upper explosion limit:	27 %(V) Information applies to the propellant.
Autoignition:	226 °C Information applies to the propellant.
Vapour pressure:	approx. 5,333 hPa (20 °C) Information applies to the propellant.
Density:	approx. 1.07 g/cm3 (20 °C)
Vapour density:	not applicable
Partitioning coefficient n-octanol/water (log Pow):	not applicable

Thermal decomposition:	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.
Viscosity, dynamic:	approx. 4.18 mPa.s (19.4 °C)
Solubility in water:	slightly soluble
Evaporation rate:	not applicable
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:
Based on its structural properties the product is not classified as oxidizing.

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
The product is chemically stable.

Conditions to avoid
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.

Incompatible materials
No substances known that should be avoided.

Hazardous decomposition products

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.

11. Toxicological information

Primary routes of exposure

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

Acute Toxicity/Effects

Acute toxicity
Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Of moderate toxicity after short-term inhalation. Virtually nontoxic after a single skin contact.

Oral
Type of value: LD50
Species: rat (female)
Value: > 5,000 mg/kg
No mortality was observed.

Inhalation
Type of value: LC50
Species: rat (male/female)
Value: > 2.15 mg/l
Exposure time: 4 h
An aerosol was tested.
No mortality was observed.

Dermal
Type of value: LD50
Species: rat (male/female)
Value: > 5,000 mg/kg
No mortality was observed.

Assessment other acute effects
Assessment of STOT single:
Causes temporary irritation of the respiratory tract.

The product has not been tested. The statement has been derived from the properties of the individual components.

Irritation / corrosion
Assessment of irritating effects: Not irritating to the skin. Not irritating to the eyes.

Skin
Species: rabbit
Result: non-irritant

Eye
Species: rabbit
Result: non-irritant

Sensitization
Assessment of sensitization: There is no evidence of a skin-sensitizing potential.

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

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: N-Methylpyrrolidone
Assessment of repeated dose toxicity: After repeated exposure the prominent effect is local irritation. The substance may cause damage to the testes after repeated inhalation of high doses.

Genetic toxicity
Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity
Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

Reproductive toxicity
Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: N-Methylpyrrolidone
Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. As shown in animal studies, the product may cause damage to the testes after repeated high exposures that cause other toxic effects. The effects observed on testes and sperm parameters did not affect fertility in rats.

Teratogenicity
Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: N-Methylpyrrolidone
Assessment of teratogenicity: After the uptake of small doses toxicity to development will not be expected in humans. Effects observed at maternally toxic doses.

Other Information
Misuse can be harmful to health.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
Acutely toxic for aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

Toxicity to fish

Information on: Triticonazole
LC50 (96 h) > 3.6 mg/l, Oncorhynchus mykiss

Aquatic invertebrates

Information on: Triticonazole
EC50 (48 h) 9.0 mg/l, Daphnia magna

Aquatic plants

Information on: Triticonazole
EC50 (96 h) > 1 mg/l (growth rate), Selenastrum capricornutum
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Persistence and degradability

Assessment biodegradation and elimination (H2O)
The product has not been tested. The statement has been derived from the properties of the individual components.

Bioaccumulative potential

Assessment bioaccumulation potential
The product has not been tested. The statement has been derived from the properties of the individual components.

Bioaccumulation potential

Information on: Triticonazole

Bioconcentration factor: 72.55 (42 d), Lepomis macrochirus
Does not accumulate in organisms.

Mobility in soil

Assessment transport between environmental compartments
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Triticonazole

Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.

Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.

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

Land transport
USDOT

Hazard class:	2.1
ID number:	UN 1950
Hazard label:	2.1, EHSM
Proper shipping name:	AEROSOLS

Sea transport
IMDG

Hazard class:	2.1
ID number:	UN 1950
Hazard label:	2.1, EHSM
Marine pollutant:	YES
Proper shipping name:	AEROSOLS (contains DIMETHYLETHER, TRITICONAZOLE)

Air transport
IATA/ICAO

Hazard class:	2.1
ID number:	UN 1950
Hazard label:	2.1
Proper shipping name:	AEROSOLS, FLAMMABLE

Further information
DOT: This product may be classified as ORM-D (Consumer Commodity) or Limited Quantity. After 12/31/2020, ORM-D will not apply.

15. Regulatory Information

Federal Regulations

Registration status:
Crop Protection TSCA, US released / exempt

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

EPCRA 313:

CAS Number	Chemical name
872-50-4	N-Methylpyrrolidone

CERCLA RQ	CAS Number	Chemical name
100 LBS	115-10-6	dimethyl ether

State regulations

State RTK	CAS Number	Chemical name
PA	115-10-6	dimethyl ether
	872-50-4	N-Methylpyrrolidone
MA	115-10-6	dimethyl ether
	872-50-4	N-Methylpyrrolidone
NJ	115-10-6	dimethyl ether
	872-50-4	N-Methylpyrrolidone

Labeling requirements under 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 workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.
CAUTION:
EXTREMELY FLAMMABLE.
KEEP OUT OF REACH OF CHILDREN.
Wear a long-sleeved shirt, long pants, socks and shoes.
Follow manufacturer's instructions for cleaning/maintaining personal protective equipment. If no such instructions for washables exists, use detergent and hot water.
Keep and wash personal protective equipment separately from other laundry.
Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
Remove contaminated clothing immediately and clean before re-use or dispose it if necessary.
Aerosol container contains flammable gas under pressure.

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2022/11/07

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.

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