



## Safety Data Sheet

### FOLICUR® 432 F FOLIAR FUNGICIDE

SDS Number: 102000012273

SDS Version 3.1

Revision Date: 02/07/2014

Print Date: 02/11/2014

#### SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

<b>Product name</b>	FOLICUR® 432 F FOLIAR FUNGICIDE
<b>SDS Number</b>	102000012273
<b>Product code (UVP)</b>	04399331
<b>PCP Registration No.</b>	25940
<b>Product Use</b>	Fungicide

Bayer CropScience Inc  
#200, 160 Quarry Park Blvd, SE  
Calgary, Alberta T2C 3G3  
Canada

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)  
For Product Information call: 1-888-283-6847

#### SECTION 2. HAZARDS IDENTIFICATION

*NOTE: Please refer to Section 11 for detailed toxicological information.*

**Emergency Overview** Caution! Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapour or mist.

<b>Physical State</b>	liquid suspension
<b>Odor</b>	chalk-like
<b>Appearance</b>	white to light beige
<b>Exposure routes</b>	Eye contact, Ingestion, Inhalation, Skin Absorption
<b>Immediate Effects</b>	
<b>Eye</b>	May cause mild irritation to eyes.
<b>Skin</b>	May cause slight irritation. Harmful if absorbed through skin.
<b>Ingestion</b>	Harmful if swallowed.
<b>Inhalation</b>	Harmful if inhaled.
<b>Chronic or Delayed Long-Term</b>	This product or its components may have target organ effects.



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**Potential Environmental Effect** Toxic to mammals. Toxic to fish and aquatic invertebrates.

#### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Tebuconazole	107534-96-3	38.70
Glycerine	56-81-5	8.10

#### SECTION 4. FIRST AID MEASURES

<b>General</b>	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
<b>Eye</b>	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.
<b>Skin</b>	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.
<b>Inhalation</b>	Move 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 physician or poison control center immediately.
<b>Notes to physician</b>	
<b>Signs and Symptoms</b>	To date no symptoms are known.
<b>Treatment</b>	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

#### SECTION 5. FIRE FIGHTING MEASURES

<b>Flash point</b>	> 93.4 °C / 200.1 °F
<b>Autoignition temperature</b>	405 °C / 761 °F



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<b>Lower Flammability Limit</b>	no data available
<b>Upper Flammability Limit</b>	no data available
<b>Explosiveness</b>	not applicable
<b>Fire and Explosion Hazards</b>	Dangerous gases are evolved in the event of a fire.
<b>Suitable extinguishing media</b>	Carbon dioxide (CO <sub>2</sub> ), Dry chemical, Foam, Water
<b>Unsuitable extinguishing media</b>	None known.
<b>Fire Fighting Instructions</b>	Keep out of smoke. Fight fire from upwind position. Evacuate personnel to safe areas. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.  Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces. Remove all sources of ignition.
<b>Methods for cleaning up</b>	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. Contaminated soil may have to be removed and disposed.
<b>Additional advice</b>	Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants.

## SECTION 7. HANDLING AND STORAGE

<b>Handling procedures</b>	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.
<b>Storing Procedures</b>	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.



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#### Work/Hygienic Procedures

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General Protection</b>	Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.
<b>Eye/Face Protection</b>	Safety glasses with side-shields
<b>Hand protection</b>	Chemical-resistant gloves made of waterproof material such as neoprene, butyl rubber, barrier laminate or nitrile rubber.
<b>Body Protection</b>	Wear long-sleeved shirt and long pants and shoes plus socks.
<b>Respiratory protection</b>	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.

#### Exposure Limits

Tebuconazole	107534-96-3	OES BCS*	TWA	0.2 mg/m <sup>3</sup>
Glycerine	56-81-5	CAD AB OEL	TWA	10 mg/m <sup>3</sup>
		CAD BC OEL	TWA	3 mg/m <sup>3</sup>
		CAD BC OEL	TWA	10 mg/m <sup>3</sup>
		CAD ON OEL	TWAEV	10 mg/m <sup>3</sup>
		CAD SK OEL	8 HR ACL	10 mg/m <sup>3</sup>
		CAD SK OEL	15 MIN ACL	20 mg/m <sup>3</sup>
		OEL (QUE)	TWA	10 mg/m <sup>3</sup>

\*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	white to light beige
<b>Physical State</b>	liquid suspension
<b>Odor</b>	chalk-like



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<b>pH</b>	ca. $\geq 7.5$ (100 %)
<b>Vapor Pressure</b>	no data available
<b>Vapor Density (Air = 1)</b>	no data available
<b>Density</b>	1.12 g/cm <sup>3</sup> at 20 °C
<b>Evaporation rate</b>	no data available
<b>Boiling Point</b>	no data available
<b>Melting / Freezing Point</b>	0 °C / 32 °F
<b>Water solubility</b>	miscible
<b>Minimum Ignition Energy</b>	not applicable
<b>Decomposition temperature</b>	not applicable
<b>Partition coefficient: n-octanol/water</b>	no data available
<b>Viscosity</b>	800 - 1,200 mPa.s

**SECTION 10. STABILITY AND REACTIVITY**

<b>Conditions to avoid</b>	Extremes of temperature and direct sunlight. freezing
<b>Incompatibility</b>	no data available
<b>Hazardous Decomposition Products</b>	Thermal decomposition can lead to release of: Nitrogen oxides (NO <sub>x</sub> ) Carbon monoxide Hydrogen cyanide (hydrocyanic acid) Hydrogen chloride (HCl)
<b>Hazardous reactions</b>	No dangerous reaction known under conditions of normal use.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Only acute toxicity studies have been performed on this product as formulated. The non-acute information pertains to the technical-grade active ingredient.



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<b>Acute oral toxicity</b>	male rat: LD50: 3,776 mg/kg  female rat: LD50: 3,710 mg/kg
<b>Acute dermal toxicity</b>	male/female combined rat: LD50: > 2,011 mg/kg
<b>Acute inhalation toxicity</b>	male/female combined rat: LC50: > 2.5 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. Highest attainable concentration. No deaths  male/female combined rat: LC50: > 10 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50.
<b>Skin irritation</b>	rabbit: Slight irritation
<b>Eye irritation</b>	rabbit: Minimally irritating.
<b>Sensitisation</b>	guinea pig: Non-sensitizing.
<b>Chronic toxicity</b>	Tebuconazole did not cause specific target organ toxicity in experimental animal studies.

**Assessment Carcinogenicity**

Tebuconazole caused at high dose levels an increased incidence of tumours in mice in the following organ(s): liver. The mechanism of tumour formation is not considered to be relevant to man.

- ACGIH**  
None.
- NTP**  
None.
- IARC**  
None.
- OSHA**  
None.

<b>Reproductive toxicity</b>	Tebuconazole caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Tebuconazole is related to parental toxicity.
<b>Developmental Toxicity</b>	Tebuconazole caused developmental toxicity only at dose levels toxic to the dams. Tebuconazole caused an increased incidence of post implantation losses, an increased incidence of non-specific malformations.
<b>Mutagenicity</b>	Tebuconazole was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.



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**SECTION 12. ECOLOGICAL INFORMATION**

<b>Toxicity to aquatic plants</b>	Pseudokirchneriella subcapitata Growth rate EC50: 15.2 mg/l Exposure time: 96 h
<b>Acute Toxicity to Aquatic Invertebrates</b>	Water flea (Daphnia magna) EC50: 31.0 mg/l Exposure time: 48 h
<b>Environmental precautions</b>	Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. 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. Apply this product as specified on the label.

**SECTION 13. DISPOSAL CONSIDERATIONS**

<b>General Disposal Guidance</b>	Do not contaminate water, food, or feed by disposal. 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.
<b>Container Disposal</b>	Triple rinse containers. Puncture container to avoid re-use. 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.

**SECTION 14. TRANSPORT INFORMATION**

According to national and international transport regulations this material is not classified as dangerous goods / hazardous material.

Freight Classification: INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN POISON

**SECTION 15. REGULATORY INFORMATION**

<b>PCP Registration No.</b>	25940
<b>US Federal Regulations</b>	
<b>TSCA list</b>	
Glycerine	56-81-5
<b>US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)</b>	
None.	
<b>SARA Title III - Section 302 - Notification and Information</b>	
None.	



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#### SARA Title III - Section 313 - Toxic Chemical Release Reporting

None.

#### US States Regulatory Reporting

##### CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

#### US State Right-To-Know Ingredients

Glycerine	56-81-5	MN
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#### Canadian Regulations

##### Canadian Domestic Substance List

Glycerine	56-81-5
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#### Environmental

##### CERCLA

None.

##### Clean Water Section 307 Priority Pollutants

None.

##### Safe Drinking Water Act Maximum Contaminant Levels

Tebuconazole	107534-96-3
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#### International Regulations

##### European Inventory of Existing Commercial Substances (EINECS)

Glycerine	56-81-5
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## SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1      Flammability - 1      Instability - 0      Others - none

HMS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1      Flammability - 1      Physical Hazard - 0      PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Reviewed and updated for general editorial purposes.

Prepared by the HSE Department of Bayer CropScience Inc. (306)-721-0310.

Revision Date: 02/07/2014

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