



Material Safety Data Sheet
PROLINE® 480 SC FOLIAR FUNGICIDE

MSDS Number: 102000014342
 MSDS Version 1.2
 Revision Date: 03/22/2011
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SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name PROLINE® 480 SC FOLIAR FUNGICIDE
MSDS Number 102000014342
PCP Registration No. 28359

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.

Physical State liquid suspension

Appearance off-white

Exposure routes Eye contact, Ingestion, Inhalation, Skin contact

Immediate Effects

Eye May cause mild irritation to eyes. Avoid contact with eyes.

Skin Harmful if absorbed through skin. May cause mild irritation to the skin. Avoid contact with skin and clothing.

Ingestion Harmful if swallowed. Do not take internally.

Inhalation Harmful if inhaled. Avoid inhalation of vapour or mist.

Chronic or Delayed Long-Term This product or its components may have long term (chronic) health effects.

Potential Environmental Effect Toxic to aquatic organisms.



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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Prothioconazole	178928-70-6	41.00
Glycerine	56-81-5	10.00

SECTION 4. FIRST AID MEASURES

General	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye	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.
Skin	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.
Ingestion	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.
Inhalation	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.
Notes to physician Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

Flash point	no data available
Autoignition temperature	no data available
Lower Flammability Limit	not applicable
Upper Flammability Limit	not applicable
Explosiveness	no data available



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Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Fire Fighting Instructions	Avoid contact with spilled product or contaminated surfaces. Evacuate personnel to safe areas. Keep out of smoke. Fight fire from upwind position. 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

Personal precautions	Isolate hazard area. Keep unauthorized people away. Use personal protective equipment.
Methods for cleaning up	Collect and transfer the product into a properly labelled and tightly closed container. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Contaminated soil may have to be removed and disposed. Clean contaminated floors and objects thoroughly, observing environmental regulations. Decontaminate tools and equipment following cleanup.
Additional advice	Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13. Do not allow to enter soil, waterways or waste water canal. Do not allow product to contact vegetation.

SECTION 7. HANDLING AND STORAGE

Handling procedures	Handle and open container in a manner as to prevent spillage. Use only in area provided with appropriate exhaust ventilation.
Storing Procedures	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. Protect from freezing.
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. Handle in accordance with good industrial hygiene and safety practice. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.



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SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- General Protection** Follow all label instructions. 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.
- Eye/Face Protection** Chemical resistant goggles must be worn.
- Hand protection** Chemical resistant nitrile rubber gloves
- Body Protection** Wear long-sleeved shirt and long pants and shoes plus socks.
- Respiratory protection** 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

Prothioconazole	178928-70-6	OES BCS*	TWA	1.4 mg/m3
Glycerine	56-81-5	OEL (QUE)	TWA	10 mg/m3
		CAD AB OEL	TWA	10 mg/m3
		CAD BC OEL	TWA	10 mg/m3
		CAD BC OEL	TWA	3 mg/m3
		CAD ON OEL	TWAEV	10 mg/m3
		OEL (QUE)	TWA	10 mg/m3

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** off-white
- Physical State** liquid suspension
- Vapor Density (Air = 1)** no data available
- Density** 1.18 g/cm³ at 20 °C
- Evaporation rate** no data available
- Water solubility** miscible
- Minimum Ignition Energy** no data available
- Decomposition temperature** no data available



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SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	freezing
Incompatibility	no data available
Hazardous Decomposition Products	no data available
Chemical Stability	Stable under recommended storage conditions.

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, prothioconazole.

Acute oral toxicity	female rat: LD50: > 2,000 - < 5,000 mg/kg (up & down method)
Acute dermal toxicity	male/female combined rat: LD50: > 5,000 mg/kg
Acute inhalation toxicity	male/female combined rat: LC50: > 1.6 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. Highest attainable concentration. No deaths (actual)
	male/female combined rat: LC50: > 6.4 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Highest attainable concentration. No deaths (actual)
Skin irritation	rabbit: slight irritation
Eye irritation	rabbit: Minimally irritating.
Sensitisation	guinea pig: Non-sensitizing.
Chronic toxicity	Prothioconazole produced liver and kidney effects in chronic oral gavage studies in rats and dogs. In addition, secondary urinary bladder effects occurred at high dose levels in the rat.

Assessment Carcinogenicity

Prothioconazole was not carcinogenic in lifetime studies in rats and mice.



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ACGIH
None.
NTP
None.
IARC
None.
OSHA
None.

Reproductive toxicity

REPRODUCTION: Prothioconazole caused decreases in litter size, pup body weight gains, and neonatal spleen weights at maternally toxic doses in a multi-generation study in rats.

DEVELOPMENTAL TOXICITY: Prothioconazole produced developmental effects in conjunction with maternal toxicity in oral gavage developmental studies in rats and rabbits. Developmental toxicity was not observed in rats exposed dermally to prothioconazole.

Assessment neurotoxicity

Prothioconazole produced slight transient neurobehavioral effects with no correlating morphological changes in the neural tissues or skeletal muscles in acute and subchronic neurotoxicity screening studies in rats. Prothioconazole is not neurotoxic.

Mutagenicity

Prothioconazole was not mutagenic or genotoxic based on the overall weight of evidence from a battery of in vitro and in vivo tests.

SECTION 12. ECOLOGICAL INFORMATION

Environmental precautions

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. Do not allow to get into surface water, drains and ground water.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance

Dispose in accordance with all local, state/provincial and federal regulations. Follow container label instructions for disposal of wastes generated during use in compliance with the product label. 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.

Container Disposal

Do not re-use empty containers. Triple rinse containers. Puncture container to avoid re-use. Follow advice on product label and/or leaflet.

SECTION 14. TRANSPORT INFORMATION



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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

PCP Registration No. 28359

US Federal Regulations

TSCA list

Glycerine 56-81-5

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)
None.

SARA Title III - Section 302 - Notification and Information
None.

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

None.

Canadian Regulations

Canadian Domestic Substance List

Glycerine 56-81-5

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

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 - 0 Reactivity - 0 Others - none

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

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

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

Reason for Revision: Updated for general editorial purposes. The following sections have been revised:
Section 8: Exposure Controls / Personal Protection.

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

Revision Date: 03/22/2011

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