



Material Safety Data Sheet
SCALA® SC GREENHOUSE FUNGICIDE

MSDS Number: 102000012523
 MSDS Version 1.2
 Revision Date: 07/19/2011
 Print Date: 07/19/2011

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name SCALA® SC GREENHOUSE FUNGICIDE
MSDS Number 102000012523
PCP Registration No. 29975
Product Use 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 inhaled or absorbed through skin. Irritating to skin. Irritating to eyes. Avoid breathing spray mist. Avoid contact with skin, eyes and clothing.

Physical State suspension liquid

Odor characteristic

Appearance brown

Exposure routes Inhalation, Skin Absorption, Eye contact, Ingestion

Immediate Effects

Eye Avoid contact with eyes. Causes eye irritation.

Skin Harmful if absorbed through skin. Irritating to skin. Avoid contact with skin and clothing.

Ingestion Do not take internally.

Inhalation Harmful if inhaled. Avoid breathing spray mist.

Chronic or Delayed Long-Term This product or its components may have target organ 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>
Pyrimethanil	53112-28-0	37.40
Lignin, reaction products with sodium bisulfite and formaldehyde	68512-35-6	4.00
1,2-Propanediol	57-55-6	2.00

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	not applicable
Autoignition temperature	no data available
Lower Flammability Limit	no data available
Upper Flammability Limit	no data available



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Suitable extinguishing media	Water spray, Foam, Dry chemical, Carbon dioxide (CO2)
Fire Fighting Instructions	<p>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.</p> <p>Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.</p>

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Isolate hazard area. Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces.
Methods for cleaning up	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.
Additional advice	Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

SECTION 7. HANDLING AND STORAGE

Handling procedures	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.
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	<p>Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.</p> <p>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.</p>

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection	Follow manufacturer's instructions for cleaning/maintaining PPE. If no such
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instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

Follow all label instructions. Train employees in safe use of the product.

- Eye/Face Protection** Safety glasses
- 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

Pyrimethanil	53112-28-0	OES BCS*	TWA	5.6 mg/m3
1,2-Propanediol	57-55-6	CAD ON OEL	TWAEV	50 ppm
		CAD ON OEL	TWAEV	10 mg/m3

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	brown
Physical State	suspension liquid
Odor	characteristic
pH	6 - 8
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Density	1.07 g/cm ³ at 20 °C
Evaporation rate	no data available
Boiling Point	no data available
Melting / Freezing Point	no data available
Water solubility	soluble



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Minimum Ignition Energy	no data available
Decomposition temperature	no data available
Partition coefficient: n-octanol/water	no data available
Viscosity	400 - 750 mPa.s

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	freezing
Incompatibility	no data available
Hazardous Decomposition Products	no data available
Hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Chemical Stability	Stable under recommended storage conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

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

Acute oral toxicity	rat: LD50: > 5,000 mg/kg
Acute dermal toxicity	rat: LD50: > 4,000 mg/kg
Acute inhalation toxicity	rat: LC50: > 1.26 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. Highest attainable concentration. No deaths
	rat: LC50: > 5.04 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50.
Skin irritation	rabbit: Moderate skin irritation.
Eye irritation	rabbit: Minimally irritating.



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Sensitisation guinea pig: Non-sensitizing.

Chronic toxicity Pyrimethanil caused liver, urinary bladder and/or thyroid (secondary effect) effects in chronic dietary studies in rats, mice and dogs.

Assessment Carcinogenicity

Pyrimethanil was not carcinogenic in a chronic feeding study in mice. In a chronic feeding study, high-dose rats had increased incidence of benign thyroid tumors, secondary to disruption of thyroid-pituitary homeostasis. EPA classified pyrimethanil as a Group C (possible human carcinogen) chemical based on this well-known, threshold-mediated, non-genotoxic mechanism of carcinogenesis. The Agency used a non-linear methodology approach for determining the Margin of Exposure (MOE) for the estimation of human cancer risk because doses below this threshold did not result in thyroid tumors. Therefore, EPA has a reasonable certainty that no harm will result from exposure to residues of pyrimethanil.

ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

Reproductive toxicity REPRODUCTION: Pyrimethanil was not a reproductive toxicant in a two-generation study in rats.

DEVELOPMENTAL TOXICITY: Pyrimethanil was not a primary developmental toxicant in rats and rabbits. Developmental effects were observed but were considered secondary to maternal toxicity.

Assessment neurotoxicity Pyrimethanil was not neurotoxic in acute (oral gavage) and subchronic (diet) neurotoxicity screening studies in rats. Transient neurobehavioral effects were observed in the acute study with no correlating morphological changes in the neural tissues.

Mutagenicity Pyrimethanil is not mutagenic or genotoxic based on in vitro and in vivo mutagenicity studies.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity to fish Rainbow trout (*Oncorhynchus mykiss*)
LC50: 10.56 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient pyrimethanil.

Toxicity to aquatic plants *Pseudokirchneriella subcapitata*
IC50: 1.2 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient pyrimethanil.



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Acute Toxicity to Aquatic Invertebrates Water flea (Daphnia magna)
EC50: 2.9 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient pyrimethanil.

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

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

Container Disposal 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.

SECTION 14. TRANSPORT INFORMATION

TDG Not dangerous goods / not hazardous material

49CFR Not dangerous goods / not hazardous material

IMDG

UN-Number **3082**
Class 9
Packaging group III
Marine pollutant YES
Description of the goods ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRIMETHANIL SOLUTION)

IATA

UN-Number **3082**
Class 9
Packaging group III
Environm. Hazardous Mark YES
Description of the goods ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRIMETHANIL SOLUTION)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.



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SECTION 15. REGULATORY INFORMATION

PCP Registration No. 29975

US Federal Regulations

TSCA list

Lignin, reaction products with sodium bisulfite and formaldehyde 68512-35-6
1,2-Propanediol 57-55-6

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

1,2-Propanediol 57-55-6 MN, RI

Canadian Regulations

Canadian Domestic Substance List

1,2-Propanediol 57-55-6

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.



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SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 2 Flammability - 0 Instability - 0 Others - none

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

Health - 2 Flammability - 0 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: 07/19/2011

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