



Material Safety Data Sheet

BAYER ADVANCED FUNGUS CONTROL FOR LAWNS
READY-TO-SPRAY

MSDS Number: 102000021987
MSDS Version 1.0
Revision Date: 09/21/2009

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name BAYER ADVANCED FUNGUS CONTROL FOR LAWNS READY-TO-SPRAY
MSDS Number 102000021987
EPA Registration No. 72155-93

Bayer Environmental Science
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
USA

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
For Product Information call: 1-800-331-2867

SECTION 2. HAZARDS IDENTIFICATION

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

Emergency Overview Caution! May be harmful by inhalation, ingestion, skin adsorption. May cause eye irritation. May cause skin irritation. Avoid breathing spray mist. Avoid contact with skin, eyes and clothing. Wash thoroughly with soap and water after handling.

Physical State liquid

Appearance white to off-white

Routes of Exposure Eye contact, Skin contact, Inhalation, Ingestion

Immediate Effects

Eye May cause eye irritation. Avoid contact with eyes.

Skin Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. May cause slight irritation. Avoid contact with skin and clothing.

Ingestion May be harmful if swallowed. Do not take internally.

Inhalation May be harmful if inhaled. Avoid breathing spray mist.

Chronic or Delayed Long-Term

This product or its components may have target organ effects. This product or its components may have long term (chronic) health effects.

Potential Environmental Effect

Toxic to fish and 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>
Propiconazole	60207-90-1	2.42
Castor oil, ethoxylated	61791-12-6	3.75

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	Treat symptomatically. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

Flash point	> 93.4 °C / 200.1 °F
Suitable Extinguishing Media	Water spray, Foam, Carbon dioxide (CO2), Dry chemical
Fire Fighting Instructions	Keep out of smoke. Fight fire from upwind position. Cool closed containers/tanks 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.



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SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions** Keep unauthorized people away. Isolate hazard area. 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). 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** Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation. Handle and open container in a manner as to prevent spillage.

- Storing Procedures** Store in original container and out of the reach of children, preferably in a locked storage area. Protect from freezing.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- General Protection** There are no known hazards associated with this product when used according to the label directions. The following guidelines should be followed.
 - Avoid inhalation of vapour or mist. Avoid contact with skin and eyes.
 - Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
 - Do not allow children or pets to enter the treated area until it has dried.

Exposure Limits

Propiconazole	60207-90-1	TX ESL	ST ESL	70 ug/m3
		TX ESL	AN ESL	7 ug/m3
Castor oil, ethoxylated	61791-12-6	TX ESL	ST ESL	1000 ug/m3
		TX ESL	AN ESL	100 ug/m3



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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white to off-white
Physical State	liquid
pH	approx. 7.8
Density	approx. 1.01 g/cm ³ at 20 °C

SECTION 10. STABILITY AND REACTIVITY

Conditions to Avoid	Freezing Elevated temperatures
Hazardous Reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Chemical Stability	Stable under normal 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, propiconazole.

Acute Oral Toxicity	female rat: LD50: > 5,000 mg/kg
Acute Dermal Toxicity	male/female combined rat: LD50: > 5,000 mg/kg
Acute Inhalation Toxicity	female rat: LC50: > 2.04 mg/l Exposure time: 4 h Determined in the form of liquid aerosol.
	female rat: LC50: > 8.16 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50.
Skin Irritation	rabbit: No skin irritation.
Eye Irritation	rabbit: No eye irritation.
Sensitization	guinea pig: Non-sensitizing.
Chronic Toxicity	Propiconazole caused liver effects and/or stomach irritations in chronic studies in rodents and dogs.



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Assessment Carcinogenicity

Propiconazole has been classified as a Group C (possible human carcinogen) chemical based on liver tumors in male mice. In lifetime feeding studies, propiconazole was not carcinogenic to rats or to female mice.

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

- Reproductive toxicity** **REPRODUCTION:** Propiconazole was not considered a primary reproductive toxicant in a two-generation study in rats.

 DEVELOPMENTAL TOXICITY: Propiconazole is considered a developmental toxicant based on developmental toxicity studies in rats.
- Neurotoxicity** Propiconazole caused minimal neurobehavioral effects without correlating neuropathological changes in neurotoxicity studies in rats.
- Mutagenicity** Propiconazole was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

SECTION 12. ECOLOGICAL INFORMATION

- Environmental Precautions** Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Do not allow to get into surface water, drains and ground water. Do not apply when weather conditions favor runoff or drift. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.



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SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines. Never place unused product down any indoor or outdoor drain.

Container Disposal Do not re-use empty containers. Place empty container in trash.

SECTION 14. TRANSPORT INFORMATION

TRANSPORTATION CLASSIFICATION:
Not regulated for transport in the US

FREIGHT CLASSIFICATION:
Insecticides or Fungicides, N.O.I., other than poison

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 72155-93

US Federal Regulations

TSCA list

Castor oil, ethoxylated 61791-12-6

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

Propiconazole 60207-90-1 1.0%

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

Propiconazole 60207-90-1 NJ

Canadian Regulations

Canadian Domestic Substance List

Castor oil, ethoxylated 61791-12-6

Environmental



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CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 1 Reactivity - 0 Others - none

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

Reason to Revise: New Material Safety Data Sheet.

Revision Date: 09/21/2009

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