



Material Safety Data Sheet

BAYER ADVANCED BERMUDAGRASS CONTROL FOR LAWNS READY-TO-SPRAY

MSDS Number: 102000014567

MSDS Version 1.0

Revision Date: 01/29/2007

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name BAYER ADVANCED BERMUDAGRASS CONTROL FOR LAWNS READY-TO-SPRAY
MSDS Number 102000014567
EPA Registration No. 72155-74

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. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Fenoxaprop-P-ethyl	71283-80-2	0.41
Naphthalene	91-20-3	0.35

SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview Caution! Hazard to humans and domestic animals. Harmful if swallowed. Causes eye irritation. Avoid contact with skin, eyes and clothing. Do not allow children or pets to enter the treated area until it has dried.

Physical State liquid
Odor aromatic
Appearance off-white
Routes of Exposure Eye contact, Skin contact, Ingestion, Inhalation
Immediate Effects
Eye Moderate eye irritation. Do not get in eyes.
Skin May cause slight irritation. Avoid contact with skin.



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Ingestion Harmful if swallowed. Do not take internally.

Potential Environmental Effect Toxic to fish and aquatic invertebrates.

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 Hazards	Contains hydrocarbon solvents. May pose an aspiration pneumonia hazard.
Treatment	There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

SECTION 5. FIRE FIGHTING MEASURES

Flash point	no data available
Suitable Extinguishing Media	Foam, Carbon dioxide (CO2), Dry chemical, Water spray
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** Take up with absorbent material (e.g. sand, diatomaceous earth or a proprietary absorbent material). 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 product to contact vegetation.

SECTION 7. HANDLING AND STORAGE

- Storing Procedures** Do not freeze. Store in original container and out of the reach of children, preferably in a locked storage area. Keep away from food, drink and animal feedingstuffs.

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.

- Eye/Face Protection** protective eyewear

- Body Protection** Wear long-sleeved shirt and long pants and shoes plus socks.

Exposure Limits

Glycerine	56-81-5	ACGIH	TWA	Mist.	10 mg/m3
		Form of exposure			
		OSHA Z1	PEL	Respirable fraction.	5 mg/m3
		Form of exposure			
		OSHA Z1	PEL	Total dust.	15 mg/m3
		Form of exposure			
		OSHA Z1A	TWA	Respirable fraction.	5 mg/m3
		Form of exposure			
		OSHA Z1A	TWA		10 mg/m3



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		Form of exposure		Total dust.	
		US CA OEL	TWA PEL		5 mg/m3
		Form of exposure		Respirable fraction.	
		US CA OEL	TWA PEL		10 mg/m3
		Form of exposure		Total dust.	
Naphthalene	91-20-3	ACGIH	TWA		10 ppm
		ACGIH	STEL		15 ppm
		NIOSH	REL	10 ppm	50 mg/m3
		NIOSH	STEL	15 ppm	75 mg/m3
		OSHA Z1	PEL	10 ppm	50 mg/m3
		OSHA Z1A	TWA	10 ppm	50 mg/m3
		OSHA Z1A	STEL	15 ppm	75 mg/m3
		US CA OEL	TWA PEL	10 ppm	50 mg/m3
		US CA OEL	STEL	15 ppm	75 mg/m3

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	off-white
Physical State	liquid
Odor	aromatic
pH	7 - 9 (100 %) at 20 °C
Density	approx. 1.01 g/cm ³ at 20 °C

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
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SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity data for this product have been bridged from a similar formulation containing a higher percentage of the active ingredient, Fenoxaprop-P-Ethyl. The non-acute information pertains to technical-grade Fenoxaprop-P-Ethyl.

Acute Oral Toxicity	male/female combined rat: LD50: > 5,000 mg/kg
Acute Dermal Toxicity	male/female combined rat: LD50: > 4,000 mg/kg



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Acute Inhalation Toxicity male/female combined rat: LC50: > 10.7 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.

male/female combined rat: LC50: > 20 mg/l
Exposure time: 1 h
Determined in the form of liquid aerosol.
Extrapolated from the 4 hr LC50.

Skin Irritation rabbit: Slight irritation.

Eye Irritation rabbit: Moderate eye irritation.

Sensitization guinea pig: Non-sensitizing.

Chronic Toxicity Fenoxaprop-P-ethyl caused liver and/or adrenal effects in long-term dietary studies in rats, mice and dogs.

Assessment Carcinogenicity

Fenoxaprop-P-ethyl caused liver and adrenal gland tumors at the highest dose tested in mice. However, there was no evidence of carcinogenicity in a combined chronic/carcinogenicity study in rats treated with Fenoxaprop-P-Ethyl.

ACGIH

Naphthalene 91-20-3 Group A4

NTP

Naphthalene 91-20-3

IARC

Naphthalene 91-20-3 Overall evaluation: 2B

OSHA

None.

Reproductive & Developmental Toxicity REPRODUCTION: Fenoxaprop-P-ethyl was not a reproductive toxicant in a two-generation study in rats.

DEVELOPMENTAL TOXICITY: Fenoxaprop-P-ethyl is not a primary developmental toxicant in rats and rabbits. Developmental effects were observed in both species but were considered secondary to maternal toxicity.

Mutagenicity Fenoxaprop-P-ethyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

SECTION 12. ECOLOGICAL INFORMATION



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LAWNS READY-TO-SPRAY**

**Environmental
Precautions**

Do not apply when weather conditions favor runoff or drift. Drift or runoff may adversely affect non-target plants. 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. Do not allow to get into surface water, drains and ground water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites.

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.

RCRA Classification

The RCRA Classifications may be on the individual component(s) and not necessarily on the product as a whole.

91-20-3 Naphthalene
US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261): U165

91-20-3 Naphthalene
US. EPA Resource Conservation and Recovery Act (RCRA) U List of Hazardous Wastes (40 CFR 261.33(f) and 40 CFR 302 [CERCLA]): U165

SECTION 14. TRANSPORT INFORMATION

TRANSPORTATION CLASSIFICATION:
Not regulated for shipment by any mode

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

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 72155-74

US Federal Regulations

TSCA list

Naphthalene

91-20-3



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US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

Naphthalene 91-20-3

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

Naphthalene 91-20-3 0.1%

US States Regulatory Reporting

CA Prop65

This product contains a chemical known to the State of California to cause cancer.

Naphthalene 91-20-3

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

US State Right-To-Know Ingredients

Naphthalene 91-20-3 CA, CT, IL, MN, NJ, PA, RI

Canadian Regulations

Canadian Domestic Substance List

Naphthalene 91-20-3

Environmental

CERCLA

Naphthalene 91-20-3 100 lbs

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

International Regulations

European Inventory of Existing Commercial Substances (EINECS)

Fenoxaprop-P-ethyl 71283-80-2

Naphthalene 91-20-3

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 0 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: 01/29/2007

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