



PROSTAR 70 WP FUNGICIDE

MSDS Version 2.1

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name	PROSTAR 70 WP FUNGICIDE
Chemical Name	N-{3-(1-methylethoxy)phenyl}-2- (trifluoromethyl) benzamide (active ingredient)
Synonym	NA 304/01 (PROSTAR 70WP)
MSDS Number	140
Chemical Family	
Chemical Formulation	Mixture (active ingredient: C17H16F3NO2)
EPA Registration No.	432-1223
Canadian Registrat. No.	

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

For Product Use Information: (800)331-2867 Monday through Friday(CRLF) 8:00AM-4:30PM(CRLF) For Medical Emergency contact DART: (800) 334-7577 24 Hours/Day(CRLF) For Transportation Emergency CHEMTREC: (800) 424-9300 24 Hours/Day

Product Use Description ProStar 70WP in WSF is a fungicide for use on turf.

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component Name</u>	<u>CAS No.</u>	<u>Concentration % by Weight</u>	
		<u>Minimum</u>	<u>Maximum</u>
Flutolanil	66332-96-5	70.0000	
Inert ingredients,including:		30.0000	
Hydrous Aluminum Silicate	1332-58-7		
Hydrated Amorphous Silica	7631-86-9		
QUARTZ	14808-60-7		

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SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview	Causes moderate eye irritation. Toxic to aquatic invertebrate (e.g., shrimp).
Physical State	solid powder (packaged in water soluble bags)
Odor	Essentially odorless
Appearance	light tan
Routes of Exposure	Dust inhalation, skin contact.
Immediate Effects	
Eye	Causes moderate eye irritation.
Skin	Not known to be a skin irritant. Harmful if absorbed through skin. Does not cause skin sensitization in animal studies.
Ingestion	No specific health effects are known for ingestion of a small amount incidental to routine handling and use.
Inhalation	Excessive dust inhalation may irritate upper respiratory track. No specific health effects are known.
Chronic or Delayed Long-Term	Flutolanil technical is not listed as carcinogenic by NTP, IARC, or OSHA. One inert ingredient contains a small amount of crystalline silica which is a naturally occurring component of sand, clay and inorganic soil. Chronic exposure to respirable crystalline silica is known to cause silicosis (formation of fibrous tissue in the lung) if inhaled. IARC has listed the crystalline silica as a probable human carcinogen (class 2A), based on human inhalation exposures under excessive and chronic conditions (e.g., long-term clay or mineral mining working conditions). However, under the normal handling and use of this product in accordance with the product label, such excessive and chronic inhalation exposure by the users is unlikely.
Medical Conditions Aggravated by Exposure	Excessive dust inhalation may aggravate pre-existing respiratory conditions.
Signs and Symptoms	Effects of overexposure are probably non-specific and slight.

SECTION 4. FIRST AID MEASURES

Eye	Flush eyes with plenty of water. Call a physician if irritation persists.
Skin	Wash with plenty of soap and water. Seek medical attention.

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SECTION 5. FIRE FIGHTING MEASURES

Flash Point	Does not flash
Fire and Explosion Hazards	Dispersion of fine dust in the air can form an explosive mixture. Will burn to give off toxic oxides of carbon and nitrogen.
Suitable Extinguishing Media	water, foam, carbon dioxide (CO ₂), dry powder
Fire Fighting Instructions	Wear positive pressure self-contained breathing apparatus. Spray containers with water to keep cool.

SECTION 6. ACCIDENTAL RELEASE MEASURES

General and Disposal	Use proper protective equipment to minimize personal exposure (see Section 8). Take all necessary action to prevent and to remedy the effects of the spill. Ensure that the disposal is in compliance with Federal or local disposal regulations. Notify the appropriate authorities immediately. See Section 13 for any applicable Reportable Quantity (RQ) and other federal regulatory information. Report immediately to authorities if liquid enters watercourse or sewer.
Land Spill or Leaks	Sweep up carefully while avoiding the formation of a dust cloud. Place in suitable container and seal. Area can be washed with water to remove last trace of the material but keep out of watercourse or sewers. Inform appropriate authorities immediately if contamination occurs.

SECTION 7. HANDLING AND STORAGE

Handling Procedures	Avoid contact with skin, eyes and clothing.
Storing Procedures	Keep in a dry, cool place. Do not store near or contaminate food or feed products.
Work/Hygienic Procedures	Do not apply this product through any type of irrigation system. User of this product MUST refer to the product label at the time of pesticide applications.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls	Control airborne concentrations below the exposure guidelines. Local exhaust ventilation may be necessary, when used in a confined area.
Eye/Face Protection	safety glasses chemical goggles
Body Protection	PVC or rubber gloves
Respiratory Protection	Ensure good ventilation. If not adequate, use a suitable dusk mask or a dust respirator.
General Protection	Refer to the product label for applicable details concerning the "User Safety Recommendations" and the use of Personal Protective Equipment under the EPA Worker Protection Standards (40 CFR Part 170). However, please note that use of ProStar 70WP on golfcourses is not within the scope of WPS uses.

Exposure Limits

Hydrous Aluminum Silicate	1332-58-7	NIOSH	REL		5 mg/m3
			Form of Exposure	Respirable.	
		NIOSH	REL		10 mg/m3
			Form of Exposure	Total	
		US CA OEL	TWA PEL		2 mg/m3
			Form of Exposure	Respirable dust.	
		OSHA Z1	PEL		5 mg/m3
			Form of Exposure	Respirable fraction.	
		OSHA Z1	PEL		15 mg/m3
			Form of Exposure	Total dust.	
		OSHA Z1A	TWA		5 mg/m3
	Form of Exposure	Respirable fraction.			
OSHA Z1A	TWA		10 mg/m3		
	Form of Exposure	Total dust.			
ACGIH	TWA		2 mg/m3		
	Remarks	The value is for particulate matter containing no asbestos and <1% crystalline silica.			
Hydrated Amorphous Silica	7631-86-9	NIOSH	REL		6 mg/m3
		US CA OEL	TWA PEL		5 mg/m3
			Form of Exposure	Respirable fraction.	
		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.	
		US CA OEL	TWA PEL		5 mg/m3
	Form of Exposure	Respirable fraction.			
US CA OEL	TWA PEL		10 mg/m3		

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		Form of Exposure	Total dust.	
		US CA OEL TWA PEL		10 mg/m3
		Form of Exposure	Total dust.	
		ACGIH TWA		10 mg/m3
		Remarks	The value is for particulate matter containing no asbestos and <1% crystalline silica.	
		ACGIH TWA		3 mg/m3
		Remarks	The value is for particulate matter containing no asbestos and <1% crystalline silica.	
QUARTZ	14808-60-7	NIOSH REL		0.05 mg/m3
		Form of Exposure	Respirable dust.	
		OSHA Z1A TWA		0.1 mg/m3
		Form of Exposure	Respirable dust.	
		US CA OEL TWA PEL		0.1 mg/m3
		Form of Exposure	Respirable dust.	
		US CA OEL TWA PEL		0.3 mg/m3
		Form of Exposure	Total dust.	
		ACGIH TWA		0.05 mg/m3

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	light tan
Physical State	solid powder (packaged in water soluble bags)
Odor	Essentially odorless
Vapor Pressure	No data for the formulated product, this values is for the a.i. 1.33 x 10(-5) mm Hg at 20 °C
Vapor Density (air = 1)	Not volatile
Bulk Density	24 lb/cubic ft.
Boiling Point	Not applicable
Melting/Freezing Point	104 - 105 °C No data for the formulated product, this values is for the a.i.
Solubility (in water)	9.6 mg/l (9.6 ppm) at 68°F*

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(2,000-10,000 ppm), slight anemia, minor liver damage and some nephrosis were observed. However, flutolanil had no significant effect on mortality and was not carcinogenic at any of the doses tested. Similar results were observed in dogs administered up to 1250 mg/kg/day.

Assessment Carcinogenicity

ACGIH

Hydrous Aluminum Silicate	1332-58-7	Group A4
QUARTZ	14808-60-7	Group A2

NTP

QUARTZ	14808-60-7	
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IARC

Hydrated Amorphous Silica	7631-86-9	3
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OSHA

None

Reproductive & Developmental Toxicity Flutolanil technical showed no adverse effects on reproduction in a three-generation rat reproduction study at dietary doses up to 10,000 ppm.

Neurotoxicity Data not available.

Teratogenicity Flutolanil Technical demonstrated no teratogenic effects in rabbits at oral dose levels up to 1000 mg/kg/day.

Mutagenicity Flutolanil technical was not mutagenic or genotoxic when tested in the Ames gene mutation assay, the mouse micronucleus test, or the chromosomal aberration assay.

SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions This product is toxic to aquatic invertebrates. 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 water when disposing of equipment washwaters.

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SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance

Any disposal practice must be in compliance with all Federal, State/provincial, and local laws and regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

Do not contaminate water, food, or feed by storage or disposal. Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal

Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

RCRA Classification

Not Regulated under this Statute

SECTION 14. TRANSPORT INFORMATION

PROPER SHIPPING NAME: None

DOT SHIPPING LABEL: None

SECTION 15. REGULATORY INFORMATION

US Federal

EPA Registration No. 432-1223

TSCA list

Hydrous Aluminum Silicate 1332-58-7

Hydrated Amorphous Silica 7631-86-9

QUARTZ 14808-60-7

TSCA 12b export notification

None

SARA Title III - section 302 - notification and information

None

SARA Title III - section 313 - toxic chemical release reporting

None

US States Regulatory

CA Prop65

This product contains a chemical known to the state of California to cause cancer. QUARTZ 14808-60-7

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US State right-to-know ingredients

Hydrous Aluminum Silicate	1332-58-7	IL, MN, PA, RI
Hydrated Amorphous Silica	7631-86-9	CA, MN, PA
QUARTZ	14808-60-7	IL, MA, MN, PA

Canadian Regulations

Canadian Registrat. No.

Canadian Domestic Substance List

Hydrous Aluminum Silicate	1332-58-7
Hydrated Amorphous Silica	7631-86-9
QUARTZ	14808-60-7

Environmental

CERCLA

None

Clean Water Section 307 Priority Pollutants

None

Safe Drinking Water Act Maximum Contaminant Levels

None

International Regulations

EU Classification

None

European Inventory of Existing Commercial Substances (EINECS)

Hydrated Amorphous Silica	7631-86-9
QUARTZ	14808-60-7

SECTION 16. OTHER INFORMATION

	Health	Flammability	Reactivity	Others
HMIS	1	1	0	E
NFPA	1	1	0	none

MSDS REVISION INDICATOR: Company name change.

Print Date: 12/09/2002

Supersedes MSDS, which is older than: 12/09/2002

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