

# ZENECA Ag Products

## MATERIAL SAFETY DATA SHEET

### FUSILADE II TURF & ORNAMENTAL

Version: 1

Date issued: 11/25/98

MSDS No. US006003\_01

Date printed: 12/07/98

---

#### Section 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company : Zeneca Agricultural Products  
1800 Concord Pike  
Wilmington DE 19850

Phone number : (302) 886-1000

Emergency phone : Medical: 800-327-8633 (1-800 FASTMED)  
Chemtrec: 800-424-9300  
Technical: 302-886-3000

Name used on label : FUSILADE II TURF & ORNAMENTAL

Product use : Herbicide

A Registered Trade Mark of a Zeneca Group Company.

---

#### Section 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Identity	CAS-no.	Typical %	Other information
FLUAZIFOP-P-BUTYL	TECHNICAL		
	79241-46-6	24.5 %	
Other Ingredients:			
inerts		54.6 %	
SOLVESSO 150			
	64742-94-5	20.9 %	
			Contains naphthalene (CAS 91-20-3)
			OSHA PEL 10 ppm

Ingredients not precisely identified are proprietary or non hazardous.  
Values are not product specifications.

---

#### Section 3 – HAZARDS IDENTIFICATION

Physical hazards:  
None

Health hazards:  
Irritant (eye, skin, respiratory passages, skin sensitizer). Toxic  
(inhalation).

# ZENECA Ag Products

## MATERIAL SAFETY DATA SHEET

### FUSILADE II TURF & ORNAMENTAL

Version: 1

Date issued: 11/25/98

MSDS No. US006003\_01

Date printed: 12/07/98

---

#### Section 4 – FIRST AID MEASURES

---

##### IF IN EYES:

Immediately flush with plenty of water for at least 15 minutes. If redness, itching or a burning sensation develops, have eyes examined and treated by medical personnel.

##### IF ON SKIN:

Wash material off the skin with plenty of soap and water. If redness, itching or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

##### IF SWALLOWED:

Provided the patient is conscious, give 1 or 2 glasses of water to drink. Immediately contact Zeneca's Emergency Information Network at 1-800-F-A-S-T-M-E-D (327-8633). If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer water. Immediately transport victim to an emergency facility.

##### IF INHALED:

Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is labored, give oxygen. Consult medical personnel.

##### MEDICAL ADVICE:

Induced emesis may be indicated in the alert patient who has ingested a large (intentional) quantity. Lavage may be indicated for the obtunded patient who has ingested such a large dose. Hydrocarbon pneumonitis is a risk if this product is aspirated.

---

#### Section 5 – FIRE FIGHTING MEASURES

---

##### Flash point :

> 212 °F

Method: TCC

##### Autoignition temperature :

No data.

##### Flammable limits (STP): :

No data.

##### EXTINGUISHING MEDIA:

Carbon dioxide, foam, dry chemical, halogenated agents. Water spray may be used to cool containers, but a water stream may spread flames.

##### PROTECTIVE EQUIPMENT:

# ZENECA Ag Products

## MATERIAL SAFETY DATA SHEET

### FUSILADE II TURF & ORNAMENTAL

Version: 1

Date issued: 11/25/98

MSDS No. US006003\_01

Date printed: 12/07/98

---

Self-contained breathing apparatus with full facepiece and protective clothing.

Unusual fire and explosion hazards:

Possible toxic smoke, vapors, fallout and runoff water can result from fires depending on extent of combustion and presence of other combustible materials. Contaminated buildings, areas, and equipment must be properly decontaminated before reuse.

---

### Section 6 – ACCIDENTAL RELEASE MEASURES

---

#### PERSONAL PRECAUTIONS:

Steps to be taken in case material is released or spilled:

Make sure all personnel involved in the spill cleanup follow good industrial hygiene practices. A small spill can be handled routinely. Use adequate ventilation and wear an air-supplied respirator to prevent inhalation. Wear suitable protective clothing and eye protection to prevent skin and eye contact.

#### METHODS FOR CLEANING UP:

Do not allow the material to enter streams, sewers or other waterways. Spread a suitable absorbent such as clay on the spill, and shovel into an open drum.

Generously cover the contaminated areas with common, household detergent (e.g. TIDE, registered trademark of Proctor & Gamble Co.). Using a stiff brush and small amounts of water, work the detergent into the remaining spilled material forming a slurry. Brush the slurry into cracks and crevices and allow to stand for 2-3 minutes. Be careful to completely avoid skin or eye contact. Do not splatter on oneself or bystanders. Spread absorbent on the slurry liquid and shovel mixture into the open drum.

Rinse with small amount of water and use absorbent to collect the wash solution. Shovel into the open drum.

Seal drum and dispose of contaminated material in a facility permitted for hazardous waste. Large spills should be handled according to a spill plan. Otherwise, in case of emergency call, day or night, 800-424-9300, Chemtrec.

---

# ZENECA Ag Products

## MATERIAL SAFETY DATA SHEET

### FUSILADE II TURF & ORNAMENTAL

Version: 1

Date issued: 11/25/98

MSDS No. US006003\_01

Date printed: 12/07/98

---

### Section 7 – HANDLING AND STORAGE

#### REQUIREMENTS FOR STORAGE ROOMS:

Containers should be stored in a cool, dry, well-ventilated area away from flammable materials and sources of heat or flame. Exercise due caution to prevent damage to or leakage from the container.

#### ADDITIONAL INFORMATION:

Do not store near feed, food, or within the reach of children.

---

### Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Occupational exposure limits

#### TLV or suggested control value:

No ACGIH TLV or OSHA PEL assigned. Minimize exposure in accordance with good hygiene practice. Zeneca has established an employee exposure standard of 0.5 mg/m<sup>3</sup> for the active ingredient.

#### VENTILATION:

This product is intended for use outdoors where engineering controls are not necessary. If use conditions are different (e.g. product reformulation or repackaging), use ventilation adequate to maintain safe levels.

#### EYE PROTECTION:

Eye contact with the material should be avoided through the use of chemical safety glasses, goggles or a faceshield, selected in regard to exposure potential.

#### BODY PROTECTION:

Skin contact should be prevented through the use of impervious gloves, footwear, long-sleeved clothing, and wide brimmed hat. Remove contaminated clothing and wash before rewearing. Wash separately from other laundry.

#### RESPIRATORY PROTECTION:

If needed, use MSHA-NIOSH approved respirator for pesticides.

#### Other protective equipment:

An adequate supply of clean potable water should be available to allow thorough flushing of skin and eyes in event of contact with this compound.

#### Special precautions or other comments:

Prevent skin and eye contact with this material. Avoid breathing vapors or aerosols. Workers should shower and change to fresh clothing after each shift. A sensitized individual should not be exposed to the product which caused the sensitization.

# ZENECA Ag Products

## MATERIAL SAFETY DATA SHEET

### FUSILADE II TURF & ORNAMENTAL

Version: 1

Date issued: 11/25/98

MSDS No. US006003\_01

Date printed: 12/07/98

---

#### Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

---

Form	: homogenous liquid
Physical state	: Emulsifiable Concentrate
Color	: blue
Boiling point	: No data.
Vapor Pressure	: No data. at 20 °C Method: mmHg
Vapour density	: No data. (air = 1)
Specific gravity:	: 0.9807 g/ml
Solubility	: No data.
pH-value (quant.)	: 6.2 1% w/w dilution in deionized water
Volatile by volume:	: No data.

---

#### Section 10 – STABILITY AND REACTIVITY

---

##### HAZARDOUS REACTIONS (CONDITIONS TO AVOID)

Stability:  
Stable under normal conditions.  
Incompatibility:  
Oxidizing agents.  
Hazardous polymerization:  
Will not occur.

##### HAZARDOUS DECOMPOSITION PRODUCTS

Combustion products - Carbon dioxide, carbon monoxide.

---

#### Section 11 – TOXICOLOGICAL INFORMATION

---

##### ACUTE TOXICITY (LETHAL DOSES)

##### LD50 Ingestion rat (both genders)

Dose : > 5000 mg/kg

Additional inform. : This material is classified as "very low toxicity" by ingestion. In humans, severe gastrointestinal disturbance is associated with ingestion of the hydrocarbon solvent. Ingestion of excessive quantities can also induce signs of central nervous system depression (e.g., drowsiness, dizziness, loss of coordination, and fatigue). Small amounts of the

# ZENECA Ag Products

## MATERIAL SAFETY DATA SHEET

### FUSILADE II TURF & ORNAMENTAL

Version: 1

Date issued: 11/25/98

MSDS No. US006003\_01

Date printed: 12/07/98

---

hydrocarbon solvent, if aspirated into the lungs during ingestion or subsequent vomiting, may induce severe lung congestion resulting in labored breathing, coma and death.

#### LC50 Inhalation

Dose : 0.54 .. 0.77 mg/l  
Period : 4 hours  
Additional inform. : Because the vapor pressure of the active ingredient is low (0.056 mm Hg at 20 deg C), this is unlikely to cause harmful effects under normal conditions of transporting, handling and use. Vapors and aerosols are toxic and can irritate eyes, nose and respiratory passages.

#### LD50 Skin absorption

Dose : > 2000 mg/kg  
Period : 4 hours  
Additional inform. : Systemically toxic concentrations of this product will probably not be absorbed through human skin.

#### Dermal rabbit

Period : 4 hours  
Additional inform. : This material was moderately irritating to rabbit skin following a 4-hour exposure. It was moderately irritating following a 24-hour exposure. Similar results will probably occur following contact with human skin. Skin sensitization and irritation may develop after repeated and/or prolonged contact with human skin.

#### ACUTE TOXICITY (IRRITATION, SENSITIZATION ETC.)

##### Eye contact rabbit

Results : SLIGHT IRRITANT  
Additional inform. : A similar degree of irritation will probably occur after human eye contact.

#### GENERAL INFORMATION ABOUT ACUTE OR OTHER TOXICITIES

##### General information

Limited toxicity data are available on this specific product; this health hazard assessment is based on the results of screening tests.

##### Other effects of overexposure:

No other adverse clinical effects have been associated with exposure to this material.

# ZENECA Ag Products

## MATERIAL SAFETY DATA SHEET

### FUSILADE II TURF & ORNAMENTAL

Version: 1

Date issued: 11/25/98

MSDS No. US006003\_01

Date printed: 12/07/98

---

### Section 12 – ECOLOGICAL INFORMATION

---

#### ADDITIONAL INFORMATION ABOUT ECOLOGY

Toxic to fish.

---

### Section 13 – DISPOSAL CONSIDERATIONS

---

#### Disposal Method:

Discarded product is not a hazardous waste under RCRA, 40 CFR 261.

#### Container disposal:

Empty container retains product residue. Observe all hazard precautions. Do not distribute or make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

---

### Section 14 – TRANSPORT INFORMATION

---

#### ROAD TRANSPORT DOT

Not regulated by DOT.

---

### Section 15 – REGULATORY INFORMATION

---

#### HAZARDOUS INGREDIENTS

Other regulations, restrictions and prohibitions

#### TSCA (Toxic Substances Control Act) Regulations, 40CFR 710:

This product is a pesticide and is exempt from TSCA regulation.

#### CERCLA and SARA Regulations (40 CFR 355, 370, and 372):

Section 313 Supplier Notification. This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

<2.2% Naphthalene (CAS 91-20-3).

#### EPA

EPA Registration no.: 10182-393

---

# ZENECA Ag Products

## MATERIAL SAFETY DATA SHEET

### FUSILADE II TURF & ORNAMENTAL

Version: 1

Date issued: 11/25/98

MSDS No. US006003\_01

Date printed: 12/07/98

---

### Section 16 – OTHER INFORMATION

---

ZENECA Ag Products believes that the information and recommendations contained herein (including data and statements) are accurate as of the date thereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates to the specific product designated and may not be valid where such product is used in combination with any other materials or in any process. Further, since the conditions and methods of use of the product and of the information referred to herein are beyond the control of ZENECA Ag Products, ZENECA Ag Products expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

A vertical bar (|) in the left margin indicates an amendment from the previous version.