



# MATERIAL SAFETY DATA SHEET

## **TURFCIDE® 10G**

**Version:** 1.0  
**Date of Issue:** 03/08/2006  
**Date printed:** 03/25/2006

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### 1. PRODUCT AND COMPANY IDENTIFICATION

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**Product name :** TURFCIDE® 10G

**Chemical name:** Pentachloronitrobenzene (Active)

**Use of substance/preparation:** Fungicide

**Supplier:** Chemtura USA Corporation  
Chemtura Corporation (Worldwide HQ)  
199 Benson Road  
Middlebury, CT 06749 USA

**Emergency telephone number:** CHEMTREC (24 hours) 800-424-9300  
Chemtura Corporation Emergency Response (24 hours) 800-292-5898  
For additional emergency telephone numbers see section 16 of the Safety Data Sheet.

**Environmental, Health and Safety Department:** 866-430-2775

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### 2. COMPOSITION / INFORMATION ON INGREDIENTS

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<u>INGREDIENT</u>	<u>% BY WEIGHT</u>
Pentachloronitrobenzene CAS# 82-68-8	10
Xylene CAS# 1330-20-7	< 2
1,2,4-Trimethylbenzene CAS# 95-63-6	< 3

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### 3. HAZARDS IDENTIFICATION

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#### EMERGENCY OVERVIEW

#### **CAUTION!**

MAY CAUSE EYE AND SKIN IRRITATION.  
MAY CAUSE AN ALLERGIC SKIN REACTION.  
TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.  
NOTE TO END-USERS: THE EMPLOYEE PROTECTION RECOMMENDATIONS ON THIS MSDS MAY DIFFER FROM THOSE ON THE PRODUCT LABEL. FOR NORMAL USE OF THIS PRODUCT, ALWAYS REFER TO THE PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS ON THE PRODUCT LABEL.



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### 4. FIRST AID MEASURES

#### Swallowing

Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

#### Inhalation

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

#### Skin contact

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

#### Eye contact

Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lens, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

### 5. FIRE-FIGHTING MEASURES

Flammable limits

**Lower limit:** Not available  
**Upper limit:** Not available

Autoignition temperature:

Not available

#### NFPA CLASSIFICATION

<b>Health: 1</b>	<b>Flammability: 1</b>	<b>Reactivity: 0</b>	<b>Special provisions:</b>
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#### Hazardous combustion products

Irritating fumes.  
Oxides of carbon.  
Oxides of nitrogen.

#### Special fire fighting procedures

Do not discharge extinguishing waters into streams, rivers and lakes.

#### Special protective equipment for firefighters

Body covering protective clothing, full "turn-out" gear.  
Self-contained breathing apparatus.

#### Extinguishing media

**Suitable:**

- CO2
- dry powder
- foam
- water fog

**Unsuitable:** - water spray

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions

Wear suitable protective equipment., Avoid contact with eyes and skin.

#### Environmental precautions

Prevent from entering sewer system, surface water or soil.

#### Methods for cleaning up



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Sweep up and collect in a suitable container for disposal.  
 Avoid dust formation.

### 7. HANDLING AND STORAGE

#### HANDLING

##### Handling precautions

Do not get in eyes, on skin, on clothing.

##### Other precautions

NOTE TO END-USERS: The employee protection recommendations on this MSDS may differ from those on the product label. For normal use of this product, always refer to the personal protective equipment requirements on the product label.

#### STORAGE

##### Storage requirements

Store in a cool, dry place.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### EXPOSURE LIMIT VALUES

Component	Country	Type	Value	Remark
Pentachloronitrobenzene	Belgium	MAC TWA	0.5 mg/m3	
	Denmark	TWA	0.5 mg/m3	
	Ireland	OEL-TWA	0.5 mg/m3	
	Italy	TWA	0.5 mg/m3	
	Spain	VLA-ED	0.5 mg/m3	
	the Netherlands	TGG	0.5 mg/m3	
	USA	TWA-TLV, ACGIH	0.5 mg/m3	
				Toxicity to reproduction/fertility: A4
Xylene		TWA, OSHA	435 mg/m3 100 ppm	
		STEL, OSHA	655 mg/m3 150 ppm	
		TWA - ACGIH	100 ppm	
		STEL, ACGIH	150 ppm	
1,2,4-Trimethylbenzene		TWA, OSHA	125 mg/m3 25 ppm	
		TWA, ACGIH	25 ppm	

No other exposure limits have been established

#### PERSONAL PROTECTION

##### Respiratory protection

A respirator approved for dust/fume or mist protection is recommended for mists, sprays or aerosols.



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### Hand protection / protective gloves

Chemical resistant protective gloves

### Eye protection

Safety glasses with side shields.

### Skin protection

Wear protective clothing, such as long sleeves to minimize skin contact.

### ENGINEERING CONTROLS

#### Ventilation

Local ventilation is needed in the presence of airborne mists, sprays or aerosols and/or high vapor concentrations.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### APPEARANCE

Physical state	Granular solid
Color	Gray
Odor	Musty
Odor threshold	Not available

### OTHER PROPERTIES

Boiling point	Not available
Melting point	Not available
pH	Not available
Specific gravity (H <sub>2</sub> O=1)	Not available
Bulk density	544.6 kg/m <sup>3</sup>
Vapor pressure	
Solubility in water	Low
Solubility in organic solvents	Soluble
Evaporation rate (Butyl Acetate=1)	Not available
Evaporation rate (Butyl Acetate=1)	Negligible
Partitioning coefficient	Not available
Flash point	Not available
Autoignition temperature	Not available
Upper explosion limits	Not available
Lower explosion limits	Not available

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## 10. STABILITY AND REACTIVITY

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**Stability:** This product is stable under normal storage and handling conditions.

### Incompatible materials

Oxidizing agents.



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Strong acids.
Strong bases.

Hazardous combustion products
Irritating fumes.
Oxides of carbon.
Oxides of nitrogen.

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

SWALLOWING

Test results

Acute toxicity: LD50 Rats
Result: 12.4 g/kg

Table with 2 columns: Component data (Pentachloronitrobenzene, Acute toxicity - Swallowing) and LD50 - Rat (Result: > 5,000 mg/kg)

Table with 2 columns: Component data (Pentachloronitrobenzene, Acute toxicity - Skin absorption) and LD50 - Rabbit (Result: > 2,000 mg/kg)

Table with 2 columns: Component data (Pentachloronitrobenzene, Acute toxicity - Inhalation) and LC50 - Rat (Result: > 0.25 mg/l, Exposure time: 4 h)

Table with 2 columns: Component data (Pentachloronitrobenzene, Skin irritation - Skin contact) and Species: Rabbit (Exposure time: 4 h, Result: Slightly irritating, Classification: Not irritant)

Table with 2 columns: Component data (Pentachloronitrobenzene, Eye irritation - Eye contact) and Species: Rabbit (Result: Mild irritation, Classification: Not irritant)

Table with 2 columns: Component data (Pentachloronitrobenzene, Sensitization) and Species: Guinea pigs (Result: Positive)

MUTAGENICITY

Component (Pentachloronitrobenzene): Ames-test: no mutagenic effect

MUTAGENICITY

Component (Pentachloronitrobenzene): This material was negative in a mouse lymphoma mutagenicity assay.

MUTAGENICITY

Component (Pentachloronitrobenzene): Sister Chromatid Exchange: Negative

MUTAGENICITY

Component (Pentachloronitrobenzene): Negative in a mouse micronucleus assay.

MUTAGENICITY

Component (Pentachloronitrobenzene): Chromosome Aberration (CHO): Positive

CARCINOGENICITY

Component (Pentachloronitrobenzene): IARC Group 3: cannot be classified as carcinogenic to humans.



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### 12. ECOLOGICAL INFORMATION

<u>Component ecotoxicology</u> Pentachloronitrobenzene <u>Acute toxicity fish:</u>	Acute toxicity fish LC50 - Bluegill ( <i>Lepomis macrochirus</i> ) Result: 0.1 mg/l Exposure time: 96 h
<u>Component ecotoxicology</u> Pentachloronitrobenzene <u>Acute toxicity fish:</u>	Acute toxicity fish LC50 - Rainbow trout ( <i>Oncorhynchus mykiss</i> ) Result: 0.55 mg/l Exposure time: 96 h
<u>Component ecotoxicology</u> Pentachloronitrobenzene <u>Acute toxicity to aquatic invertebrates:</u>	Acute daphnia toxicity LC50 - Water flea ( <i>Daphnia magna</i> ) Result: 0.77 mg/l Exposure time: 48 h

### 13. DISPOSAL CONSIDERATIONS

**General:** Dispose of in accordance with appropriate Federal, State, and local regulations., Avoid discharge to sewers and natural waters.

**Non-cleaned packages**

Empty drums should be decontaminated and either passed to an approved drum reconditioner or destroyed., Containers that cannot be cleaned must be treated as waste.

**US waste**

In accordance with EPA/RCRA 40 CFR261.33 (f) U158.In accordance with EPA/RCRA 40 CFR261.33 (f) U158.In accordance with EPA/RCRA 40 CFR261.33 (f) U158.In accordance with EPA/RCRA 40 CFR261.33 (f) U158.

### 14. TRANSPORT INFORMATION

**DOT Classification**

Not regulated by ground or rail if shipped or transported in container less than 400kg.

**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
**Class:** 9  
**UN ID #:** UN3077  
**Packing group:** III  
**marine pollutant:** MARINE POLLUTANT

Not regulated by ground or rail if shipped or transported in container less than 400kg.

**IMDG Classification**

**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
**Class:** 9  
**Subsidiary risk:** marine pollutant  
**UN ID #:** UN 3077  
**Packing group:** III  
**Marpol:** marine pollutant

**ICAO Classification**

**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
**Class:** 9  
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**Packing group:** III



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### 15. REGULATORY INFORMATION

Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of hazardous substances equal to or greater than the reportable quantities (RQ's) in 40CFR302.4.

Components present in this product at a level which could require reporting under the statute are:

Chemical name	CAS#	Max weight %
Pentachloronitrobenzene	82-68-8	10.00

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40CFR372 (for SARA 313). This information must be included in MSDS's that are copied and distributed for this material.

Components present in this product at a level which could require reporting under the statute are:

Chemical name	CAS#	Max weight %
Pentachloronitrobenzene	82-68-8	10.00

Massachusetts Right-To-Know Substance List (MSL)--Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products.

Components present in this product at a level which could require reporting under the statute are:

Chemical name	CAS#	Max weight %
Pentachloronitrobenzene	82-68-8	10.00

Pennsylvania Right-To-Know Hazardous Substance List--Hazardous Substances and Special Hazardous Substances on the list must be identified when present in products.

Components present in this product at a level which could require reporting under the statute are:

Chemical name	CAS#	Max weight %
Pentachloronitrobenzene	82-68-8	10.00

New Jersey Worker and Community Right-To-Know Act (Labeling Requirements)

Chemical name	CAS#	New Jersey TS Number
Pentachloronitrobenzene	82-68-8	

Inerts -

### CHEMICAL INVENTORY

Canada: This product is exempt from the New Substances Notification Regulations under CEPA when used as a component in a registered pesticide formulation.

Europe: The ingredients of this product are on the EINECS inventory.

United States: The ingredients of this product are listed on the TSCA inventory or are exempt.

Australia: The ingredients of this product are on the AICS inventory.

China: This product is listed with the State Environmental Protection Administration (SEPA).

Japan: The ingredients of this product are on the ENCS inventory.

Philippines: The ingredients of this product are on the PICCS.

### 16. OTHER INFORMATION

RECOMMENDED USES AND RESTRICTIONS NOTE TO END-USERS: This MSDS is being provided to all interested persons in accordance with federal and state right-to-know laws. Precautionary Statements, First Aid Statements and Directions for Use of this product by end-users are contained on the product label and must be followed at all times.

FURTHER INFORMATION

MAY BE ON THE INVENTORY LIST BUT NOT NECESSARILY REGISTERED, (Korea, China, New Zealand) CONSULT REGULATORY SPECIALIST.

### Emergency Telephone Numbers

Latin America:	All	+44 (0)208 762 8322
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### HMIS RATING

<b>Health: 1</b>	<b>Flammability: 1</b>	<b>Reactivity: 0</b>	<b>PPI:</b>
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STP	Standard temperature and pressure
W/W	0 (HMIS)
1 (HMIS)	Slight hazard
2 (HMIS)	Moderate hazard
3 (HMIS)	Serious hazard
4 (HMIS)	Severe hazard
X (HMIS)	Personal protection rating to be supplied by user depending on use conditions

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