



# MATERIAL SAFETY DATA SHEET

## *Bean Guard®/Allegiance®*

**Version:** 1.3  
**Date of Issue:** 10/02/2007  
**Date printed:** 10/03/2007

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### 1. PRODUCT AND COMPANY IDENTIFICATION

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**Product name :** Bean Guard®/Allegiance®

**Chemical name:** Captan - Carboxin - Metalaxyl (Actives)

**Use of substance/preparation:** Seed Treatment Fungicide

**Supplier:** Chemtura Corporation  
199 Benson Road  
Middlebury, CT 06749 USA

**Emergency telephone number:** CHEMTREC (24 hours) 800-424-9300, 703-527-3887  
Chemtura Corporation Emergency Response (24 hours) 800-292-5898

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

**Prepared by** Product Safety Department      Date of Issue: 10/02/2007  
(US) +1 866-430-2775  
(EU) +44 (0) 1753.603.000  
Email: MSDSRequest@chemtura.com

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### 2. HAZARDS IDENTIFICATION

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#### EMERGENCY OVERVIEW

#### DANGER!

MAY BE HARMFUL IF INHALED, SWALLOWED, OR ABSORBED THROUGH SKIN.  
MAY CAUSE PERMANENT EYE DAMAGE.  
MAY CAUSE SENSITIZATION BY SKIN CONTACT.

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### 3. COMPOSITION / INFORMATION ON INGREDIENTS

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INGREDIENT	% BY WEIGHT
Captan CAS# 133-06-2	25
Carboxin CAS# 5234-68-4	12.5
Metalaxyl CAS# 57837-19-1	3.75
Molybdate, disodium CAS# 7631-95-0	25.5



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Graphite 10 - 20  
 CAS# 7782-42-5

Talc 5 - 15  
 CAS# 14807-96-6

Ingredients not precisely identified are non-hazardous and/or proprietary.

### 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.

#### **Notes to physician**

##### ROUTES OF ENTRY:

Inhalation

Skin

Eyes

Ingestion

Treat symptomatically.

Probable mucosal damage may contraindicate the use of gastric lavage.

### 5. FIRE-FIGHTING MEASURES

#### **NFPA CLASSIFICATION**

<b>Health: 3</b>	<b>Flammability: 0</b>	<b>Reactivity: 0</b>	<b>Special provisions:</b>
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#### **Hazardous combustion products**

Irritating fumes.  
 Oxides of carbon.  
 Oxides of nitrogen.  
 Oxides of sulfur.  
 Hydrogen chloride.  
 Phosgene.

#### **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:**

- Large fires:**
  - alcohol-type foam or universal-type foams
- Small fires:**
  - CO2
  - dry chemical



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**Unsuitable:** - water spray  
- water jets

### Unusual fire and explosion hazards

Following products may be produced during a fire: Irritating fumes., Oxides of carbon., Oxides of nitrogen., Oxides of sulfur., Hydrogen chloride., Phosgene.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Evacuate unnecessary personnel., Avoid all contact with material., Wear suitable protective equipment.

### Environmental precautions

Prevent from entering sewer system, surface water or soil.

### Methods for cleaning up

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

## 7. HANDLING AND STORAGE

### HANDLING

#### Handling precautions

Wear recommended personal protection equipment., Warn personnel about the dangers of the product., Keep container tightly closed., Avoid dispersion of dust to reduce fire and explosion potential.

#### 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.

#### Further information on storage

Do not store near food, feed or fertilizers.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE LIMIT VALUES

<u>Component</u>	<u>Country</u>	<u>Type</u>	<u>Value</u>	<u>Remark</u>
Captan	USA	TWA, ACGIH	5 mg/m3	Toxicity to reproduction/fertility: A3 Respirable fraction
Captan	USA	TWA, OSHA	5 mg/m3	
Captan	USA			Sensitization danger: SENSITIZER
Graphite	USA	TLV-TWA, ACGIH	2 mg/m3	respirable fraction, all forms except graphite fibers



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Talc	USA	TWA, ACGIH	2 mg/m3	Respirable fraction Non-asbestos form; otherwise, use asbestos
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### **PERSONAL PROTECTION**

#### **Respiratory protection**

In the absence of engineering controls sufficient to maintain airborne concentrations below recommended occupational exposure limit values, appropriate respiratory protection should be utilized. The determination of appropriate respiratory protection is best performed, on a case by case basis, taking into consideration the exposure conditions of the particular operation.

The respirator manufacturer should be consulted to ensure that the air-purifying cartridges utilized will provide adequate protection for the exposure conditions and period of wear concerned.

For emergency conditions where the exposure limit may be greatly exceeded, use an approved positive-pressure self-contained breathing apparatus.

#### **Hand protection / protective gloves**

Chemical resistant protective gloves

#### **Eye protection**

Full face shield.

#### **Skin protection**

Chemical resistant protective clothing.

#### **Industrial hygiene measures**

Before eating, drinking or smoking, wash hands and face thoroughly with soap and water.

### **ENGINEERING CONTROLS**

#### **Ventilation**

Provide local exhaust or process enclosure ventilation system.

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## **9. PHYSICAL AND CHEMICAL PROPERTIES**

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### **APPEARANCE**

**Physical state** Powder  
**Color** Gray  
**Odor** Mild Pungent

### **OTHER PROPERTIES**

**Melting point** Not available  
**pH** Not available  
**Bulk density** 35 - 43.5 lb/ft<sup>3</sup>  
**Vapor pressure**  
**Solubility in water** Insoluble  
**Flash point** 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.



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**Incompatible materials:**

Oxidizing agents.  
Strong acids.  
Strong bases.

**Hazardous combustion products:**

Irritating fumes.  
Oxides of carbon.  
Oxides of nitrogen.  
Oxides of sulfur.  
Hydrogen chloride.  
Phosgene.

**Hazardous polymerization:** Will not occur.

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### 11. TOXICOLOGICAL INFORMATION

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SWALLOWING

Test results

**Acute toxicity:** LD50  
Result: > 5,000 mg/kg

<b><u>Component data</u></b> Captan Acute toxicity - Swallowing:	LD50 - Rat Result: 9,000 mg/kg
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SKIN ABSORPTION

Test results

**Acute toxicity:** LD50  
Result: > 5,000 mg/kg

<b><u>Component data</u></b> Captan Acute toxicity - Skin absorption:	LD50 Result: > 5,000 mg/kg
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INHALATION

Test results

**Acute toxicity:** LC50  
Result: > 8.16 mg/l  
Exposure time: 4 h

SKIN CONTACT

Test results

**Skin irritation:** Result: Non irritating.

<b><u>Component data</u></b> Captan Skin irritation - Skin contact:	Result: Irritant
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EYE CONTACT

Test results

**Eye irritation:** Result: Not irritating

<b><u>Component data</u></b> Captan Sensitization:	Remark: sensitizing
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CARCINOGENICITY

**Component** (Captan): Classified A3 (Proven for animal) by ACGIH.



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### 12. ECOLOGICAL INFORMATION

Toxic to aquatic organisms.

Component ecotoxicology Carboxin Acute toxicity fish:	LC50 - Rainbow trout (Oncorhynchus mykiss) Result: 2.3 mg/l Exposure time: 96 h
Component ecotoxicology Carboxin Acute toxicity fish:	LC50 - Bluegill (Lepomis macrochirus) Result: 3.6 mg/l Exposure time: 96 h
Component ecotoxicology Metalaxyl Acute toxicity fish:	LC50 - Rainbow trout (Oncorhynchus mykiss) Result: > 100 mg/l Exposure time: 96 h
Component ecotoxicology Captan Chronic toxicity fish:	Static LC50 - Fathead minnow (Pimephales promelas) Result: 0.2 mg/l Exposure time: 3 d
Component ecotoxicology Captan Chronic toxicity fish:	Static LC50 - Rainbow trout (Oncorhynchus mykiss) Result: 0.0732 mg/l Exposure time: 3 d
Component ecotoxicology Captan Chronic toxicity fish:	Static LC50 - Bluegill (Lepomis macrochirus) Result: 0.141 mg/l Exposure time: 3 d
Component ecotoxicology Carboxin Aquatic toxicity to plants:	EC50 - Selenastrum capricornutum Result: 0.48 mg/l Exposure time: 120 h
Component ecotoxicology Metalaxyl Aquatic toxicity to plants:	IC50 - Green algae (Scenedesmus subspicatus) Result: 33 mg/l Exposure time: 5 d
Component ecotoxicology Captan Acute toxicity to aquatic invertebrates:	LC50 - Water flea (Daphnia magna): Result: 7.06 mg/l Exposure time: 48 h
Component ecotoxicology Carboxin Acute toxicity to aquatic invertebrates:	EC50 - Water flea (Daphnia magna) Result: > 57 mg/l Exposure time: 48 h
Component ecotoxicology Metalaxyl Acute toxicity to aquatic invertebrates:	EC50 - Result: > 28 mg/l Exposure time: 48 h

### 13. DISPOSAL CONSIDERATIONS

**General:** Dispose of in accordance with appropriate Federal, State, and local regulations., Do not discharge to sewers and natural waters.



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US waste  
 In accordance with EPA/RCRA regulations 40 CFR261.33 (f) U244

### 14. TRANSPORT INFORMATION

#### DOT Classification

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

Not regulated by ground or rail if shipped or transported in containers less than 40 lbs (18.1 kg).

Technical description Carboxin / Captan

#### IMDG Classification

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
 Class: 9  
 UN ID #: UN 3077  
 Packing group: III  
 Technical description (Carboxin / Captan)

#### ICAO Classification

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
 Class: 9  
 UN ID #: UN 3077  
 Packing group: III  
 Technical description (Carboxin / Captan)

Only regulated by air Into, Out of or Within the United States in containers 40 lbs (18.1 kg) or greater.

### 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	RQ 10 pounds for	CAS#	Max weight %
Captan	Captan	133-06-2	25.75
Carboxin		5234-68-4	13.12

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 %
Captan	133-06-2	25.75

EPA Hazard Categories (SARA 311, 312): Immediate Health Hazard, Delayed Health Hazard



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### California Proposition 65

This product contains Captan (>1.0%)

### CHEMICAL INVENTORY

United States: This product is subject to regulation under the US Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and is therefore exempt from TSCA Inventory listing requirements.

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## 16. OTHER INFORMATION

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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.

### HMIS RATING

<b>Health: 3</b>	<b>Flammability: 0</b>	<b>Reactivity: 1</b>	<b>PPI: J</b>
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STP	Standard temperature and pressure
W/W	Weight/Weight 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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