



**MSDS:** 0000145  
**Date:** 11/10/2005  
**Supersedes:** 10/25/2005

## MATERIAL SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** **HARDENER 185**  
**Synonyms:** Mixture of inorganic salt and shell flour  
**Chemical Family:** Mixture  
**Molecular Formula:** Mixture  
**Molecular Weight:** Mixture

CYTEC INDUSTRIES INC., FIVE GARRET MOUNTAIN PLAZA, WEST PATERSON, NEW JERSEY 07424, USA  
For Product Information call 1-800/652-6013. Outside the USA and Canada call 1-973/357-3193.

EMERGENCY PHONE: For emergency involving spill, leak, fire, exposure or accident call CHEMTREC: 1-800/424-9300. Outside the USA and Canada call 1-703/527-3887.

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

#### OSHA REGULATED COMPONENTS

Component / CAS No.	% (w/w)	OSHA (PEL):	ACGIH (TLV)	Carcinogen
Ammonium chloride 12125-02-9	13.0	10 mg/m <sup>3</sup> Fume. (TWA) 20 mg/m <sup>3</sup> (STEL)	10 mg/m <sup>3</sup> fume (TWA) 20 mg/m <sup>3</sup> fume (STEL)	-

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

##### APPEARANCE AND ODOR:

Color: brown  
Appearance: powder  
Odor: odorless

##### STATEMENTS OF HAZARD:

WARNING! MAY FORM EXPLOSIVE DUST-AIR MIXTURES  
MAY CAUSE EYE IRRITATION

#### POTENTIAL HEALTH EFFECTS

##### EFFECTS OF EXPOSURE:

The acute oral (rat) LD50 and dermal (rabbit) LD50 values are estimated to be >5000 mg/kg and >2000 mg/kg, respectively. The 4-hour inhalation (rat) LC50 value is estimated to be >20 mg/l. Direct contact with this material may cause mild eye and minimal skin irritation. Inhalation overexposure may cause irritation of the respiratory tract. Refer to Section 11 for toxicology information on the regulated components of this product.

## 4. FIRST AID MEASURES

**Skin Contact:**

Wash immediately with plenty of water and soap.

**Eye Contact:**

Rinse immediately with plenty of water for at least 15 minutes.

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## 5. FIRE-FIGHTING MEASURES

**Extinguishing Media:**

Use water spray or fog, carbon dioxide or dry chemical.

**Protective Equipment:**

Firefighters, and others exposed, wear self-contained breathing apparatus.

**Special Hazards:**

Dust may be explosive if mixed with air in critical proportions and in the presence of a source of ignition.

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## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**

Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. Refer to Section 8 (Exposure Controls/Personal Protection) for appropriate personal protective equipment.

**Methods For Cleaning Up:**

Sweep up into containers for disposal. Flush spill area with water.

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## 7. HANDLING AND STORAGE

**HANDLING**

**Precautionary Measures:** Contains finely divided material. Dust suspended in air may ignite with static discharge, sparks or flame. Equipment, including venting systems, should be grounded. Provide adequate ventilation in areas of use to remove dust. Avoid contact with eyes. Wash thoroughly after handling.

**Special Handling Statements:** Maintain good housekeeping to control dust accumulations. DUST EXPLOSION HAZARD CLASS - 1 Handling of material should be in accordance with standards for venting of deflagrations (e.g. NFPA-68). If handled with flammable or combustible materials the explosion hazard may increase.

**STORAGE**

None

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Measures:**

Engineering controls are not usually necessary if good hygiene practices are followed.

**Respiratory Protection:**

Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure.

**Eye Protection:**

Wear eye/face protection such as chemical splash proof goggles or face shield.

**Skin Protection:**

Avoid skin contact. Wear impermeable gloves and suitable protective clothing.

**Additional Advice:**

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

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Color:</b>	brown
<b>Appearance:</b>	powder
<b>Odor:</b>	odorless
<b>Boiling Point:</b>	Not applicable
<b>Melting Point:</b>	Not available
<b>Vapor Pressure:</b>	Not applicable
<b>Specific Gravity/Density:</b>	Not available
<b>Vapor Density:</b>	Not applicable
<b>Percent Volatile (% by wt.):</b>	Negligible
<b>pH:</b>	Not applicable
<b>Saturation In Air (% By Vol.):</b>	Not applicable
<b>Evaporation Rate:</b>	Not applicable
<b>Solubility In Water:</b>	Appreciable
<b>Volatile Organic Content:</b>	
<b>Flash Point:</b>	Not applicable
<b>Flammable Limits (% By Vol):</b>	Not applicable
<b>Autoignition Temperature:</b>	Not available
<b>Decomposition Temperature:</b>	Not available
<b>Partition coefficient (n-octanol/water):</b>	Not available
<b>Odor Threshold:</b>	Not available

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## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable
<b>Conditions To Avoid:</b>	None known
<b>Polymerization:</b>	Will not occur
<b>Conditions To Avoid:</b>	None known
<b>Hazardous Decomposition Products:</b>	carbon monoxide carbon dioxide ammonia hydrogen chloride oxides of nitrogen

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## 11. TOXICOLOGICAL INFORMATION

Toxicological information for the product is found under Section 3. HAZARDS IDENTIFICATION.  
Toxicological information on the regulated components of this product is as follows:

The acute oral (rat) and dermal (rabbit) LD50 values for ammonium chloride are 1650 mg/kg and >2000 mg/kg, respectively. Direct contact with ammonium chloride may cause mild eye and skin irritation. Inhalation overexposure to ammonium chloride vapors can cause irritation to the eyes, nose, and throat.

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## 12. ECOLOGICAL INFORMATION

This material is not classified as dangerous for the environment.  
The ecological assessment for this material is based on an evaluation of its components.

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## 13. DISPOSAL CONSIDERATIONS

The information on RCRA waste classification and disposal methodology provided below applies only to the Cytec product, as supplied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA `listed hazardous waste` or has any of the four RCRA `hazardous waste characteristics.` Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA `listed hazardous waste`; information contained in Section 15 of this MSDS is not intended to indicate if the product is a `listed hazardous waste.` RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, see Section 9 of this MSDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 2 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed. Cytec encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste. Cytec recommends that organic materials classified as RCRA hazardous wastes be disposed of by thermal treatment or incineration at EPA approved facilities. Cytec has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

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## 14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

### US DOT

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.  
Hazard Class: 9  
Packing Group: III  
UN/ID Number: UN3077

Transport Label Required: Miscellaneous  
 Technical Name (N.O.S.): Contains ammonium chloride  
 Hazardous Substances:

<u>Component / CAS No.</u>	<u>Reportable Quantity of Product (lbs)</u>
Ammonium chloride	38461.5

## TRANSPORT CANADA

Proper Shipping Name: Not applicable/Not regulated

## ICAO / IATA

Proper Shipping Name: Not applicable/Not regulated  
 Packing Instructions/Maximum Net Quantity Per Package:  
 Passenger Aircraft: -  
 Cargo Aircraft: -

## IMO

Proper Shipping Name: Not applicable/Not regulated

# 15. REGULATORY INFORMATION

## INVENTORY INFORMATION

**United States (USA):** All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

**Canada:** All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

**European Union (EU):** All components of this product are included on the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.

**Australia:** All components of this product are included in the Australian Inventory of Chemical Substances (AICS).

**China:** All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.

**Japan:** All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese inventory.

**Korea:** All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory.

**Philippines:** All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine inventory.

## OTHER ENVIRONMENTAL INFORMATION

The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

<b>Component / CAS No.</b>	<b>%</b>	<b>TPQ (lbs)</b>	<b>RQ(lbs)</b>	<b>S313</b>	<b>TSCA 12B</b>
Ammonium chloride 12125-02-9	13.0	None	5000	No	No

## PRODUCT HAZARD CLASSIFICATION UNDER SECTION 311 OF SARA

- Not applicable

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## 16. OTHER INFORMATION

### NFPA Hazard Rating (National Fire Protection Association)

Health: 1 - Materials that, under emergency conditions, can cause significant irritation.

Fire: 1 - Materials that must be preheated before ignition can occur.

Reactivity: 0 - Materials that in themselves are normally stable, even under fire exposure conditions.

**Reasons For Issue:** Revised Section 15

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