



# SAFETY DATA SHEET

THE DOW CHEMICAL COMPANY\*

Product name: ETHYLBLOC™ Pouch

Issue Date: 05/14/2015

Print Date: 05/19/2015

THE DOW CHEMICAL COMPANY\* encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

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## 1. IDENTIFICATION

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Product name: ETHYLBLOC™ Pouch

### Recommended use of the chemical and restrictions on use

Identified uses: Plant growth regulator.

### COMPANY IDENTIFICATION

THE DOW CHEMICAL COMPANY\*  
Agent for Rohm and Haas Chemicals LLC  
100 INDEPENDENCE MALL WEST  
PHILADELPHIA PA 19106-2399  
UNITED STATES

Customer Information Number:

215-592-3000  
SDSQuestion@dow.com

### EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: 1 800 424 9300

Local Emergency Contact: 800-424-9300

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## 2. HAZARDS IDENTIFICATION

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### Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Combustible dust

### Label elements

Signal word: **WARNING!**

### Hazards

May form combustible dust concentrations in air

### Precautionary statements

#### Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
Take precautionary measures against static discharge.

**Other hazards**

no data available

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

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**Chemical nature:** Mixture of solid organic compounds.

This product is a mixture.

Component	CASRN	Concentration
1-Methylcyclopropene	3100-04-7	0.13 - 0.15 %
alpha-Cyclodextrin	10016-20-3	2.9 - 3.3 %
Dextrose	50-99-7	96.0 - 97.0 %

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**4. FIRST AID MEASURES**

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**Description of first aid measures**

**Inhalation:** Move to fresh air.

**Skin contact:** Wash with water and soap as a precaution. If skin irritation persists, call a physician.

**Eye contact:** Rinse with plenty of water. If eye irritation persists, consult a specialist.

**Ingestion:** Drink 1 or 2 glasses of water. Consult a physician if necessary. Never give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician:** Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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**5. FIREFIGHTING MEASURES**

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**Suitable extinguishing media:** Use the following extinguishing media when fighting fires involving this material: Carbon dioxide (CO<sub>2</sub>) Dry powder Foam Water spray

**Unsuitable extinguishing media:** no data available

**Special hazards arising from the substance or mixture**

**Hazardous combustion products:** no data available

**Unusual Fire and Explosion Hazards:** Dusts at sufficient concentrations can form explosive mixtures with air.

**Advice for firefighters**

**Fire Fighting Procedures:** DO NOT use a solid stream of water. A solid stream of water directed at this material may create a potentially explosive airborne dust mixture. Contain run-off. Remain upwind. Avoid breathing smoke. Cool closed containers exposed to fire with water spray.

**Special protective equipment for firefighters:** Wear self-contained breathing apparatus and protective suit.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal precautions, protective equipment and emergency procedures:** Appropriate protective equipment must be worn when handling a spill of this material. See SECTION 8, Exposure Controls/Personal Protection, for recommendations. If exposed to material during clean-up operations, see SECTION 4, First Aid Measures, for actions to follow.

**Environmental precautions:** CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

**Methods and materials for containment and cleaning up:** Keep spectators away. Avoid breathing dust. Transfer spilled material to suitable containers for recovery or disposal.

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## 7. HANDLING AND STORAGE

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**Precautions for safe handling:** Do not handle material near food, feed or drinking water. Avoid high concentrations of dust in air and accumulation of dust on equipment. An airborne dust of this material can create a dust explosion. When handling and processing this material local exhaust ventilation may be required to control dust and reduce exposure to vapors. To prevent dust explosions employ bonding and grounding for operations capable of generating static electricity. Protect all equipment from explosions by following applicable guidelines. For electrical equipment follow local codes and applicable electrical classification.

**Conditions for safe storage:** Keep containers tightly closed in a dry, cool and well-ventilated place. Avoid all ignition sources. Do not store this material near food, feed or drinking water. Completely empty bag into application equipment. Dispose empty bag in a sanitary landfill or by incineration as allowed by state and local authorities. Avoid breathing smoke.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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**Control parameters**

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
1-Methylcyclopropene	Rohm and Haas	TWA	0.3 ppm
	Rohm and Haas	C	1 ppm

**Exposure controls**

**Engineering controls:** Use local exhaust ventilation with a minimum capture velocity of 150 ft/min. (0.75 m/sec.) at the point of dust or mist evolution. Refer to the current edition of "Industrial Ventilation: A Manual of Recommended Practice" published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

**Protective measures:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. End users must follow label instructions when using this product.

#### Individual protection measures

**Eye/face protection:** Chemical resistant goggles must be worn. Eye protection worn must be compatible with respiratory protection system employed.

#### Skin protection

**Hand protection:** Chemical-resistant gloves should be worn whenever this material is handled. The glove(s) listed below may provide protection against permeation. (Gloves of other chemically resistant materials may not provide adequate protection):  
- Polyvinyl chloride-coated glove or other chemical-resistant rubber-coated glove  
Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water.

**Respiratory protection:** A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements or equivalent must be followed whenever workplace conditions warrant a respirator's use. None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Up to 10 times the exposure limit: Wear a properly fitted NIOSH approved (or equivalent) half-mask, air-purifying respirator. Up to 50 times the exposure limit: Wear a properly fitted NIOSH approved (or equivalent) full-facepiece, air-purifying respirator, OR full-facepiece, airline respirator in the pressure demand mode. Above 50 times the exposure limit or Unknown: Wear a properly fitted NIOSH approved (or equivalent) self-contained breathing apparatus in the pressure demand mode, OR full-facepiece, airline respirator in the pressure demand mode with emergency escape provision. Air-purifying respirators should be equipped with NIOSH approved (or equivalent) organic vapor cartridges and N100 filters. If oil mist is present, use R100 or P100 filters.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Appearance

<b>Physical state</b>	powder
<b>Color</b>	white
<b>Odor</b>	no data available
<b>Odor Threshold</b>	no data available
<b>pH</b>	Not applicable
<b>Melting point/range</b>	no data available
<b>Freezing point</b>	no data available
<b>Boiling point (760 mmHg)</b>	Not applicable
<b>Flash point</b>	Not applicable
<b>Evaporation Rate (Butyl Acetate = 1)</b>	Not applicable
<b>Flammability (solid, gas)</b>	May form combustible dust concentrations in air
<b>Lower explosion limit</b>	no data available

Upper explosion limit	no data available
Vapor Pressure	Not applicable
Relative Vapor Density (air = 1)	Not applicable
Relative Density (water = 1)	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Dynamic Viscosity	Not applicable
Kinematic Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available
Molecular weight	no data available
Percent volatility	0 %

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## 10. STABILITY AND REACTIVITY

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**Reactivity:** no data available

**Chemical stability:** no data available

**Possibility of hazardous reactions:** This material is considered stable.  
Product will not undergo polymerization.

**Conditions to avoid:** no data available

**Incompatible materials:** Avoid contact with acids, alkalies and strong oxidizing agents.

**Hazardous decomposition products:** There are no known hazardous decomposition products for this material.

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## 11. TOXICOLOGICAL INFORMATION

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*Toxicological information appears in this section when such data is available.*

### Acute toxicity

#### Acute oral toxicity

LD50, Rat, > 5,000 mg/kg

#### Acute dermal toxicity

LD50, Rat, > 5,000 mg/kg

#### Acute inhalation toxicity

Product test data not available.

**Skin corrosion/irritation**

Essentially nonirritating to skin.  
Mechanical injury only.

**Serious eye damage/eye irritation**

Essentially nonirritating to eyes.

**Sensitization**

Not a sensitizer.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Product test data not available.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Product test data not available.

**Carcinogenicity**

Product test data not available.

**Teratogenicity**

Developmental toxicity (rat): no evidence of any developmental effects.

**Reproductive toxicity**

Product test data not available.

**Mutagenicity**

Ames mutagenicity: Non-mutagenic

In vivo micronucleus assay (mouse bone marrow cells): Not mutagenic

**Aspiration Hazard**

Product test data not available.

**Additional information**

Data for 1-methylcyclopropene:

**COMPONENTS INFLUENCING TOXICOLOGY:**

**1-Methylcyclopropene**

**Acute inhalation toxicity**

(No deaths or clinical signs of toxicity were observed at this concentration) LC50, Rat, 4 Hour,  
> 2.5 mg/l

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

**Carcinogenicity**

No relevant data found.

**Reproductive toxicity**

No relevant data found.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

**alpha-Cyclodextrin**

**Acute inhalation toxicity**

No adverse effects are anticipated from inhalation.

The LC50 has not been determined.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

**Carcinogenicity**

No relevant data found.

**Reproductive toxicity**

In animal studies, did not interfere with reproduction.

**Aspiration Hazard**

Based on available information, aspiration hazard could not be determined.

**Dextrose**

**Acute inhalation toxicity**

The LC50 has not been determined.

Dust may cause irritation to upper respiratory tract (nose and throat).

**Specific Target Organ Systemic Toxicity (Single Exposure)**

The substance or mixture is not classified as specific target organ toxicant, single exposure.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Repeated excessive exposures may cause  
Gastrointestinal irritation.

**Carcinogenicity**

No relevant data found.

**Reproductive toxicity**

No relevant data found.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

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## 12. ECOLOGICAL INFORMATION

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*Ecotoxicological information appears in this section when such data is available.*

### General Information

There is no data available for this product.

### Toxicity

#### 1-Methylcyclopropene

##### **Acute toxicity to fish**

No relevant data found.

#### alpha-Cyclodextrin

##### **Acute toxicity to fish**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).  
LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, > 100 mg/l

##### **Acute toxicity to aquatic invertebrates**

EC50, Daphnia magna (Water flea), 48 Hour, > 100 mg/l

#### Dextrose

##### **Acute toxicity to fish**

No relevant information found.

### Persistence and degradability

#### 1-Methylcyclopropene

**Biodegradability:** No relevant data found.

#### alpha-Cyclodextrin

**Biodegradability:** Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

10-day Window: Pass

**Biodegradation:** 80 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301F or Equivalent

#### Dextrose

**Biodegradability:** No relevant information found.

### Bioaccumulative potential

#### 1-Methylcyclopropene

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** Pow: 2.03 estimated

#### alpha-Cyclodextrin



**Bioaccumulation:** Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

**Partition coefficient: n-octanol/water(log Pow):** <= 3

**Dextrose**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient: n-octanol/water(log Pow):** -3.24 Estimated.

**Mobility in soil**

**1-Methylcyclopropene**

Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient(Koc):** 35 - 60 Estimated.

**alpha-Cyclodextrin**

No relevant data found.

**Dextrose**

**Partition coefficient(Koc):** 10 Estimated.

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**13. DISPOSAL CONSIDERATIONS**

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**Disposal methods:** For disposal, incinerate this material at a facility that complies with local, state, and federal regulations.

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**14. TRANSPORT INFORMATION**

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**DOT**

Not regulated for transport

**Classification for SEA transport (IMO-IMDG):**

Not regulated for transport

**Transport in bulk  
according to Annex I or II  
of MARPOL 73/78 and the  
IBC or IGC Code**

Consult IMO regulations before transporting ocean bulk

**Classification for AIR transport (IATA/ICAO):**

Not regulated for transport

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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## 15. REGULATORY INFORMATION

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### OSHA Hazard Communication Standard

This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

This product is not a hazardous chemical under 29CFR 1910.1200, and therefore is not covered by Title III of SARA.

### Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

### Pennsylvania

Any material listed as "Not Hazardous" in the CAS REG NO. column of SECTION 2, Composition/Information On Ingredients, of this MSDS is a trade secret under the provisions of the Pennsylvania Worker and Community Right-to-Know Act.

### United States TSCA Inventory (TSCA)

This product contains chemical substance(s) exempt from U.S. EPA TSCA Inventory requirements. It is regulated as a pesticide subject to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements.

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## 16. OTHER INFORMATION

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### Other information

The Material Safety Data Sheet (MSDS) augments the label and should not be used in place of regulatory approved product labels which are attached to or accompanying the product container. This MSDS provides important health, safety and environmental information for personnel that are manufacturing, distributing, transporting and storing the product, including emergency responders and other product handlers. The label provides information specifically for product users.

### Hazard Rating System

#### HMIS

Health	Flammability	Physical Hazard
1*	1	0

\* = Chronic Effects (See Hazards Identification)

### Revision

Identification Number: 101129808 / 1001 / Issue Date: 05/14/2015 / Version: 4.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

**Legend**

C	Ceiling limit
Rohm and Haas	Rohm and Haas OEL's
TWA	Time Weighted Average (TWA):

**Information Source and References**

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

THE DOW CHEMICAL COMPANY\* urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.