

# MATERIAL SAFETY DATA SHEET

*CELOGEN® AZ1901*

**Version:** 1.4  
**Date of Issue:** 04/02/2008  
**Date printed:** 04/02/2008

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## 1. PRODUCT AND COMPANY IDENTIFICATION

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**Product name :** CELOGEN® AZ1901

**Chemical name:** Azodicarbonamide

**Use of substance/preparation:** Foaming Agent

**Supplier:** Lion Copolymer Geismar, LLC.  
36191 Louisiana Highway 30  
Geismar, LA 70734 USA

**Emergency telephone number:** CHEMTREC : 800-424-9300 (For USA, and Canada)  
CHEMTREC: 703-527-3887 (For all other Countries)

**Environmental, Health and Safety Department:** US-225-673-8871 or 225-267-3608

**Prepared by** Supply Chain Date of Issue: 04/02/2007  
(US) +1 800-535-9960  
(Outside of the US) 1 + 225-267-3788  
Email: CustomerService@Lioncopolymer.com

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## 2. HAZARDS IDENTIFICATION

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### EMERGENCY OVERVIEW

#### CAUTION!

MAY CAUSE EYE IRRITATION.  
MAY CAUSE SENSITIZATION BY INHALATION.  
REPEATED EXPOSURE MAY CAUSE SENSITIZATION OF THE RESPIRATORY TRACT AND THE DEVELOPMENT OF AN ASTHMATIC REACTION ON FURTHER EXPOSURE.  
VAPOR GENERATED AT HIGH TEMPERATURE (THERMAL DEGRADATION) CAN BE IRRITATING.  
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE  
- AN EXISTING LUNG DISEASE  
AVOID DISPERSION OF DUST IN AIR TO REDUCE POTENTIAL FOR DUST IGNITION/EXPLOSIONS.

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## 3. COMPOSITION / INFORMATION ON INGREDIENTS

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INGREDIENT	% BY WEIGHT
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Azodicarbonamide  
CAS# 123-77-3

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## 4. FIRST AID MEASURES

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### **Swallowing**

Do not induce vomiting. Rinse mouth and then drink water. Obtain medical attention.

### **Inhalation**

Remove to fresh air. Obtain medical attention.

### **Skin contact**

Remove contaminated clothing. Wash thoroughly with warm water using a mild soap. Obtain medical attention if irritation persists.

### **Eye contact**

Immediately flush eyes with water and continue washing for several minutes. Obtain medical attention if irritation persists.

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## 5. FIRE-FIGHTING MEASURES

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Flammable limits

**Lower limit:** Not available

**Upper limit:** Not available

**Autoignition temperature:**

Not available

### *NFPA CLASSIFICATION*

<b>Health: 2</b>	<b>Flammability: 3</b>	<b>Reactivity: 1</b>	<b>Special provisions: No data available.</b>
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### **Hazardous combustion products**

Toxic fumes.

Ammonia.

Oxides of nitrogen.

Oxides of carbon.

Traces of incompletely burned carbon products.

### **Special fire fighting procedures**

Evacuate all personnel from danger area.

Avoid dusting when handling and avoid all possible sources of ignition (spark or flame).

Use water spray to cool fire-exposed containers and structures.

### **Special protective equipment for firefighters**

Self-contained breathing apparatus.

Full protective clothing

### **Extinguishing media**

**Suitable:** - water spray  
- dry chemical

### **Unusual fire and explosion hazards**

Heated containers may explode. Once ignited, this product will burn vigorously and with acceleration.

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## 6. ACCIDENTAL RELEASE MEASURES

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### **Personal precautions**

Avoid all contact.

### **Environmental precautions**

Avoid discharge to sewers or natural waters.

### **Methods for cleaning up**

Avoid dispersion of dust.

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Eliminate sources of ignition.  
Collect in a suitable container for disposal.  
Dispose of waste material in compliance with all federal, state, and local regulations.  
Sweep up using non-sparking equipment.

### 7. HANDLING AND STORAGE

#### **HANDLING**

##### **Handling precautions**

Avoid dispersion of dust to reduce fire and explosion potential., Take precautionary measures against static discharges.

#### **STORAGE**

##### **Storage requirements**

Keep away from heat, sparks and flame., Store in a cool, dry and well-ventilated area., Keep container tightly closed.

##### **Further information on storage**

Maximum Storage Temperature:, 80° C (176° F)

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### **EXPOSURE LIMIT VALUES**

<u>Component</u>	<u>Country</u>	<u>Type</u>	<u>Value</u>	<u>Remark</u>
Azodicarbonamide				No other exposure limits have been established

#### **PERSONAL PROTECTION**

##### **Respiratory protection**

In case of occurrence of dust respiratory protective equipment required.

##### **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 exhaust suggested to prevent dust buildup.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### **APPEARANCE**

**Physical state** Powder  
**Color** Orange-yellow  
**Odor** Characteristic  
**Odor threshold** Not available

#### **OTHER PROPERTIES**

**Boiling point** Not available  
**Melting point** 190 - 220 °C  
374 - 428 °F  
Decomposes

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<b>Solidification</b>	Not available
<b>pH</b>	Not available
<b>Specific gravity (H2O=1)</b>	Not available
<b>Density</b>	1.66 g/cm3 at 25 °C
<b>Vapor pressure</b>	
<b>Solubility in water</b>	Slightly soluble, Decomposes in alkaline solution.
<b>Solubility in organic solvents</b>	No data available.
<b>Partitioning coefficient</b>	Not available
<b>Flash point</b>	Decomposes
<b>Thermal decomposition</b>	Decomposes without ignition., Bulk quantities may self ignite if heated.
<b>Autoignition temperature</b>	Not available
<b>Upper explosion limits</b>	Not available
<b>Lower explosion limits</b>	Not available
<b>Percent volatiles</b>	Not available

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## 10. STABILITY AND REACTIVITY

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**Stability:** This product is stable only when stored at, or below, the recommended maximum temperature.

**Incompatible materials:**

Metallic compounds  
Acids.  
Bases.  
Strong oxidizing agents.

**Hazardous reactions:** Keep away from heat.

**Hazardous combustion products:**

Toxic fumes.  
Ammonia.  
Oxides of nitrogen.  
Oxides of carbon.  
Traces of incompletely burned carbon products.

**Hazardous polymerization:** Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

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Component data Azodicarbonamide Acute toxicity - Swallowing:	LD50 - Rat Result: 6,800 mg/kg
Component data Azodicarbonamide Acute toxicity - Skin absorption:	LD50 - Rabbit Result: > 2,000 mg/kg
Component data	LC50 - Rat

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Azodicarbonamide Acute toxicity - Inhalation:	Result: > 200 mg/l
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<u>Component data</u> Azodicarbonamide Skin irritation - Skin contact:	Species: Rabbit Result: Non irritating.
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<u>Component data</u> Azodicarbonamide Eye irritation - Eye contact:	Species: Rabbit Result: Slight
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<u>Component data</u> Azodicarbonamide Sensitization:	Species: Guinea pigs Result: Negative
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<u>Component data</u> Azodicarbonamide Sensitization:	Species: Human Result: Positive
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### MUTAGENICITY

<u>Component data</u> Azodicarbonamide <u>Genetic toxicity in vitro - Mutagenicity:</u> MUTAGENICITY	Test type: Ames bacterial assay Result: Positive
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<u>Component data</u> Azodicarbonamide <u>Genetic toxicity in vitro - Mutagenicity:</u> MUTAGENICITY	Test type: Unscheduled DNA synthesis (UDS) Result: Negative
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<u>Component data</u> Azodicarbonamide <u>Genetic toxicity in vitro - Mutagenicity:</u>	Test type: Chinese Hamster Ovary (CHO) Result: Negative
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## 12. ECOLOGICAL INFORMATION

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<u>Component ecotoxicology</u> Azodicarbonamide <u>Acute toxicity fish:</u>	EC50 - Fathead minnow (Pimephales promelas) Result: > 50 mg/l Exposure time: 48 h
<u>Component ecotoxicology</u> Azodicarbonamide <u>Acute toxicity to aquatic invertebrates:</u>	EC50 - Water flea (Daphnia magna) Result: 11 mg/l Exposure time: 48 h

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## 13. DISPOSAL CONSIDERATIONS

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

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## 14. TRANSPORT INFORMATION

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### DOT Classification

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This product is not regulated by DOT. Under certain circumstances, the material may be shipped as a hazardous material according to DOT regulations to retain the labeling and markings required for IMDG export.

### IMDG Classification

**Proper shipping name:** Azodicarbonamide  
**Class:** 4.1  
**UN ID #:** UN 3242  
**Packing group:** II

### ICAO Classification

FORBIDDEN BY AIR.

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## 15. REGULATORY INFORMATION

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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 (RO's) in 40CFR302.4.

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

\*\*\*\* NONE \*\*\*\*

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:

\*\*\*\* NONE \*\*\*\*

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:

\*\*\*\* NONE \*\*\*\*

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 %
**** NONE ****		

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

Chemical name	CAS#	New Jersey TS Number
Azodicarbonamide	123-77-3	

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

### California Proposition 65

\*\*\*\* NONE \*\*\*\*

### CHEMICAL INVENTORY

**Canada:** This product is on the DSL.  
**Europe:** The ingredients of this mixture are on the EINECS inventory.  
**United States:** This product is on the TSCA inventory.  
**Australia:** This product is on the AICS inventory.  
**China:** This product is on the IECSC Inventory.  
**Japan:** This product is on the ENCS inventory.  
**Korea:** This product is listed on the Existing Chemicals List (ECL).  
**Philippines:** This product is on the PICCS.

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## Food contact

21CFR172.806 Azodicarbonamide As an aging and bleaching ingredient in flour in an amount not to exceed 45 ppm. As a dough conditioner in bread in a total amount not to exceed 45ppm of the flour used. 21CFR175.300 Resinous and Polymeric Coatings Not to exceed amount required to achieve the desired effect in paper and paperboard products. 21CFR177.1210 Closures with Sealing gaskets for Food containers Additives not to exceed 2 wt% of gasket composition. As a blowing agents in the manufacture of polyethylene complying with 21CFR177.1520 at a level not to exceed 5 wt% of the finished polyethylene. 21CFR177.2600 Rubber Articles Intended for repeated uses Not to exceed 5 wt% of composition 21CFR178.3010 Adjuvant substances used in the manufacture of foamed plastics. As a blowing agents in the manufacture of polyethylene complying with 21CFR177.1520 at a level not to exceed 5 wt% of the finished polyethylene.

## 16. OTHER INFORMATION

### HMIS RATING

<b>Health: 2</b>	<b>Flammability: 3</b>	<b>Reactivity: 1</b>	<b>PPI: X</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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