

# SAFETY DATA SHEET

Version 2.0

Date of Issue: 3/13/2015

Date Printed: 3/13/2015

## CELOGEN<sup>®</sup> 780

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name :	CELOGEN <sup>®</sup> 780	DISTRIBUTED BY: R.E. CARROLL, INC. 1570 NORTH OLDEN AVENUE TRENTON, N.J. 08638-3204 USA T: 609-695-6211/800-257-9365 F: 609-695-0102 orders.recarroll.com
Chemical name:	Azodicarbonamide formulation	
Use of substance/preparation:	Foaming Agent	
Supplier:	CelChem LLC 19123 Hickory Bay Court Baton Rouge, LA 70817 USA	
Emergency telephone number:	CHEMTREC: 800-424-9300 (For USA, and Canada) CHEMTREC: 703-527-3887 (For all other Countries)	
Contact:	225-444-5402:	
Email:	customerservice@celchemllc.com	

### 2. HAZARDS IDENTIFICATION

United States (US): According to OSHA 29 CFR 1910.1200 HCS

#### Classification of the substance or mixture

Self-reactive solid Type D

Combustible Dust

Respiratory sensitization – Category 1 – H334

#### Label Elements

Pictogram:



Signal Word:

Danger

Hazard Statement(s):

Heating may cause a fire.

May form combustible dust concentrations in air.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statement(s):

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

Keep/Store away from combustible materials.

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THE OPINIONS EXPRESSED HEREIN ARE THOSE OF QUALIFIED EXPERTS WITHIN CELCHEM LLC. WE BELIEVE THAT THE INFORMATION CONTAINED HEREIN IS CURRENT AS OF THE DATE OF THIS SAFETY DATA SHEET. SINCE THE USE OF THIS INFORMATION AND OF THESE OPINIONS AND THE CONDITIONS OF USE OF THIS PRODUCT ARE NOT WITHIN THE CONTROL OF CELCHEM LLC, IT IS THE USER'S OBLIGATION TO DETERMINE THE CONDITIONS OF SAFE USE OF THE PRODUCTS

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Keep only in original container

Wear protective gloves/eye protection/face protection.

In case of fire: Use water spray or dry chemical to extinguish

Store in a well-ventilated place. Keep cool.

Store away from other materials.

Dispose of contents/container in accordance with appropriate Federal, State, and local regulations. Avoid discharge to sewers and natural waters.

Avoid breathing dust.

[In case of inadequate ventilation] wear respiratory protection.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

If experiencing respiratory symptoms: Call a doctor.

Other Hazards:

Avoid dispersion of dust in air to reduce potential for dust ignition/explosions.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT	CAS Number	Percent (w/w)	Substance Classification
Azodicarbonamide	123-77-3	>85	Combustible Dust Respiratory sensitization – Category 1 – H334
Zinc compound	Trade secret	>10	Combustible Dust
Zinc compound	Trade secret	< 5	Acute Oral Toxicity - Category 4 - H302 Skin Irritation - Category 2 - H315 Eye Irritation - Category 2 - H319 STOT Single - Category 3 - H335

### 4. FIRST AID MEASURES

#### 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.

### 5. FIREFIGHTING MEASURES

#### Special firefighting 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.

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### Extinguishing media

Suitable:- water spray  
- dry chemical

### Hazardous combustion products

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

### Special protective equipment for firefighters

Self-contained breathing apparatus.  
Full protective clothing

### Unusual fire and explosion hazards

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

### NFPA CLASSIFICATION

<b>Health:</b> 2	<b>Flammability:</b> 3	<b>Reactivity:</b> 1	<b>Special provisions:</b> No data available
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## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Avoid all contact.

### Environmental precautions

Avoid discharge to sewers or natural waters.

### Methods for cleaning up

Avoid dispersion of dust.  
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.

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### Further information on storage

Separate from combustible storage by 8 ft. aisles or isolate in a detached building. Do not store over 4 ft. high unless sprinklers are hydraulically designed to produce a density of 0.5 gpm/sq. ft. over the entire area. Maximum Storage Temperature: 55° C (131° F)

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### EXPOSURE LIMIT VALUES

Component	Country	Type	Value	Remark
Azodicarbonamide	UK	United Kingdom	OELV	1 mg/m <sup>3</sup>
		United Kingdom	OELV	3 mg/m <sup>3</sup>
Zinc compound	USA	PEL, OSHA	5 mg/m <sup>3</sup>	Respirable fraction
		PEL, OSHA	15 mg/m <sup>3</sup>	Total dust
		TLV-TWA, ACGIH	2 mg/m <sup>3</sup>	Respirable fraction
		STEL, ACGIH	10 mg/m <sup>3</sup>	Respirable fraction

#### ENGINEERING CONTROLS

##### Ventilation

Local exhaust suggested to prevent dust buildup.

#### PERSONAL PROTECTION

##### Respiratory protection

In case of occurrence of dust respiratory protective equipment required.

##### Hand protection / protective gloves

Wear chemical resistant protective gloves.

##### Eye protection

Wear safety glasses with side shields.

##### Skin protection

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

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### APPEARANCE

Physical State	Powder
Color	Orange-yellow
Odor	Characteristic
Odor threshold	Not Available
pH	Not Available
Melting Point	284 - 302 °F Decomposes
Freezing Point	Not applicable
Initial Boiling Point/Boiling Range	Not applicable
Flash Point	Decomposes
Flammability Limits	Upper: Not available Lower: Not available
Vapor Pressure	Not applicable
Vapor Density	Not applicable

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Density	1.78 g/cm <sup>3</sup> at 25 °C
Solubility in water	Slightly soluble, Decomposes in alkaline solution
Solubility in organic solvents	No data available
Partitioning Coefficient	Not available
Auto ignition Temperature	Not available
Decomposition Temperature	284-302 °F
Viscosity	Decomposes without ignition. Bulk quantities may self-ignite if heated. Not applicable

### 10. STABILITY AND REACTIVITY

**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.

### 11. TOXICOLOGICAL INFORMATION

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Azodicarbonamide	123-77-3	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 0.52 mg/L (highest attainable concentration)
Zinc compound	Trade secret	> 5000 mg/kg bw (rat)	> 2000 mg/kg (Rat)	>5.7 mg/L (4 hours, rat)
Zinc compound	Trade secret	> 500 < 2000 mg/kg bw (Rat) (similar substance)	No information available	No information available

Substances	CAS Number	Skin Corrosion / Irritation
Azodicarbonamide	123-77-3	Not irritating to skin in rabbits
Zinc compound	Trade secret	Non-irritating to the skin in rabbits and Guinea pigs.
Zinc compound	Trade secret	May be irritating to the skin.

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Substances	CAS Number	Eye damage/irritation
Azodicarbonamide	123-77-3	Non-irritating to rabbit's eye
Zinc compound	Trade secret	Non-irritating to the eye in rabbits. May cause mechanical irritation of the eye.
Zinc compound	Trade secret	Eye, rabbit: Causes moderate eye irritation

Substances	CAS Number	Skin Sensitization
Azodicarbonamide	123-77-3	Not sensitizing in laboratory animals (guinea pig, mouse).
Zinc compound	Trade secret	Did not cause sensitization on laboratory animals (Guinea pigs)
Zinc compound	Trade secret	Not sensitizing in laboratory animals (guinea pig, mouse) (similar substances).

Substances	CAS Number	Respiratory Sensitization
Azodicarbonamide	123-77-3	May cause sensitization by inhalation.
Zinc compound	Trade secret	No information available.
Zinc compound	Trade secret	No information available

Substances	CAS Number	Mutagenic Effects
Azodicarbonamide	123-77-3	While some in vitro tests showed positive results, in vivo tests were negative.
Zinc compound	Trade secret	Not regarded as mutagenic based on recent in vitro and in vivo mutagenicity studies.
Zinc compound	Trade secret	In vitro tests did not show mutagenic effects (similar substances).

Substances	CAS Number	Carcinogenic Effects
Azodicarbonamide	123-77-3	Did not show carcinogenic effects in animal experiments.
Zinc compound	Trade secret	No information available.
Zinc compound	Trade secret	No data of sufficient quality are available.

Substances	CAS Number	Reproductive toxicity
Azodicarbonamide	123-77-3	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.
Zinc compound	Trade secret	Not expected to be a reproductive toxicant (similar substance). Did not show teratogenic effects in animal experiments (similar substance).
Zinc compound	Trade secret	Not expected to be a reproductive toxicant (similar substance). Did not show teratogenic effects in animal experiments (similar substance).

Substances	CAS Number	STOT - single exposure
Azodicarbonamide	123-77-3	No significant toxicity observed in animal studies at concentrations requiring classification.
Zinc compound	Trade secret	No significant toxicity observed in animal studies at concentrations requiring classification.
Zinc compound	Trade secret	May cause respiratory irritation.

Substances	CAS Number	STOT - repeated exposure
Azodicarbonamide	123-77-3	No significant toxicity observed in animal studies at concentrations requiring classification.
Zinc compound	Trade secret	No significant toxicity observed in animal studies at concentrations requiring

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		classification.
Zinc compound	Trade secret	No significant toxicity observed in animal studies at concentrations requiring classification (similar substances).

Substances	CAS Number	Aspiration hazard
Azodicarbonamide	123-77-3	Not applicable
Zinc compound	Trade secret	Not applicable
Zinc compound	Trade secret	Not applicable

### 12 ECOLOGICAL INFORMATION

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Azodicarbonamide	123-77-3	No information available	EC50 - Fathead minnow (Pimephales promelas) Result: > 50 mg/l Exposure time: 48 h	No information available	EC50 - Water flea (Daphnia magna) Result: 11 mg/l Exposure time: 48 h
Zinc compound	Trade secret	No information available	No information available	No information available	No information available
Zinc compound	Trade secret	No information available	No information available	No information available	No information available

### 13 DISPOSAL CONSIDERATIONS

**General:**

Dispose of in accordance with appropriate Federal, State, and local regulations. Avoid sewers and natural waters.

Refer to Section 8: Exposure Controls/Personal Protection

**US Waste:**

In accordance with EPA/RCRA 40 CFR261.21 (a) (2) Ignitability, D001.

### 14 TRANSPORT INFORMATION

**DOT Classification**

Proper shipping name:

Self-reactive solid Type D

Class:

4.1

UN ID #:

UN 3226

Packaging group:

II

**IMDG Classification**

Proper shipping name:

Self-reactive solid Type D

Class:

4.1

UN ID #:

UN 3226

Packaging Group:

II

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### ICAO Classification

FORBIDDEN BY AIR

### 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 %
Zinc compound	Trade secret	5.00

**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 %
Zinc compound	Trade secret	5.00

**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 %
Zinc compound	Trade secret	5.00
Zinc compound	Trade secret	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 %
Zinc compound	Trade secret	10.00
Zinc compound	Trade secret	5.00

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

Chemical name	CAS#	New Jersey TS Number
Zinc compound	Trade secret	CROM316
Zinc compound	Trade secret	CROM319

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

### CHEMICAL INVENTORY

<b>Canada:</b>	This product is on the NDSL.
<b>Europe:</b>	The ingredients of this mixture are on the EINECS inventory.
<b>United States:</b>	This product is on the TSCA inventory.
<b>Australia:</b>	This product is not listed on the AICS inventory.
<b>China:</b>	This product is on the IECSC Inventory.



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**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.  
  
**Food additive:** Not applicable  
**Cosmetics:** Not applicable  
**Pharmaceuticals:** Not applicable

### Food contact

#### **Azodicarbonamide:**

**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 polyethylene complying with 21CFR177.1520 at a level not to exceed 5 wt. % of the finished polyethylene.

**21CFR172.806** Azodicarbonamide as an aging and bleaching ingredient in flour in an amount not to exceed 45 ppm.

### **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) No hazard  
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

Date last modified: April 8, 2015