

# CELOGEN<sup>®</sup> AZRV

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name :** CELOGEN<sup>®</sup> AZRV

**Chemical name:** Azodicarbonamide plus semicarbazide additive

**Use of substance/preparation:** Used in polymer processing and modification.

**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

Combustible Dust

Respiratory sensitization – Category 1 – H334

### Label Elements

Pictogram:



Signal Word:

Danger

Hazard Statement(s):

May form combustible dust concentrations in air.

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

Precautionary statement(s):

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.

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

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
Semicarbazide Additive	Trade secret	< 15	Combustible Dust

**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.

**Extinguishing media**

Suitable:- water spray

- dry chemical

**Hazardous combustion products are generated**

Toxic fumes.

Ammonia.

Oxides of nitrogen.

Oxides of carbon.

Traces of incompletely burned carbon products.

**Special protective equipment for firefighters**

Self-contained breathing apparatus.

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Full protective clothing.

**Unusual fire and explosion hazards**

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

**NFPA Classification:**

Health: 2	Flammability: 3	Reactivity: 1	Special provisions: 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.

**Further information on storage**

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

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****EXPOSURE LIMIT VALUES**

Component	Country	Type	Value	Remark
Azodicarbonamide	United Kingdom	OELV	1 mg/m <sup>3</sup>	8 hour TWA
	United Kingdom	OELV	3 mg/m <sup>3</sup>	15 minute exposure

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## ENGINEERING CONTROLS

### Ventilation

Local exhaust is suggested to prevent dust buildup.

## PERSONAL PROTECTION

### Respiratory protection

In case of occurrence of dust respiratory protective equipment is 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	180 - 200 °C 356 - 392 °F <b>Decomposes</b>
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
Density	1.67 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	180 - 200 °C 356 - 392 °F Decomposes without ignition. Bulk quantities may self-ignite if heated
Viscosity	Not applicable

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## 10. STABILITY AND REACTIVITY

**Reactivity****Incompatible materials:**

Metallic compounds.  
Acids.  
Bases.  
Strong oxidizing agents.

**Hazardous reactions:**

Keep away from heat.

**Chemical Stability:**

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

**Other****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)
Semicarbazide Additive	Trade secret	> 10,000 mg/kg (Rat)	No information available.	No information available.

Substances	CAS Number	Skin Corrosion / Irritation
Azodicarbonamide	123-77-3	Not irritating to skin in rabbits.
Semicarbazide Additive	Trade secret	Not irritating to skin in rabbits.

Substances	CAS Number	Eye damage/irritation
Azodicarbonamide	123-77-3	Non-irritating to rabbit's eye.
Semicarbazide Additive	Trade secret	Non-irritating to rabbit's eye.

Substances	CAS Number	Skin Sensitization
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Azodicarbonamide	123-77-3	Not sensitizing in laboratory animals (guinea pig, mouse).
Semicarbazide Additive	Trade secret	No information available.

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

Substances	CAS Number	Carcinogenic Effects
Azodicarbonamide	123-77-3	Did not show carcinogenic effects in animal experiments.
Semicarbazide Additive	Trade secret	No information 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.
Semicarbazide Additive	Trade secret	No information available.

Substances	CAS Number	STOT - single exposure
Azodicarbonamide	123-77-3	No significant toxicity observed in animal studies at concentrations requiring classification.
Semicarbazide Additive	Trade secret	No information available.

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

Substances	CAS Number	Aspiration hazard
Azodicarbonamide	123-77-3	Not applicable.
Semicarbazide Additive	Trade secret	Not applicable.

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## 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
Semicarbazide Additive	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 discharge to sewers and natural waters.

Refer to Section 8: Exposure Controls/Personal Protection

## 14 TRANSPORT INFORMATION

**DOT Classification**

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

## 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:

\*\*\*\* 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

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distributed for this material.

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

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

**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.

**Food additive:** No data available

**Cosmetics:** No data available.

**Pharmaceuticals:** No data available

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