

CELOGEN[®] AZ 150, 1901, 2500, 9370**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : CELOGEN[®] AZ 150
CELOGEN[®] AZ 1901
CELOGEN[®] AZ 2500
CELOGEN[®] AZ 9370

Chemical name: Azodicarbonamide

Use of substance/preparation: Foaming Agent

Supplier: CelChem LLC
6519 Carema Lane
Naples, FL 34113 USA

Emergency telephone number: INFOTRAC 24 hour numbers:
USA & Canada: 1-800-535-5053
Mexico: 01-800-681-1530
Outside North America: +1-352-323-3500 (collect)

Contact: 239-228-2285
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.

CELOGEN[®] AZ 150, 1901, 2500, 9370

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.

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 | 100 | Combustible Dust Respiratory sensitization – Category 1 – H334 |

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.

CELOGEN[®] AZ 150, 1901, 2500, 9370

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:

| | | | |
|------------------|------------------------|----------------------|---|
| Health: 2 | Flammability: 3 | Reactivity: 1 | Special provisions: No data available. |
|------------------|------------------------|----------------------|---|

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**

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

ENGINEERING CONTROLS**Ventilation**

CELOGEN[®] AZ 150, 1901, 2500, 9370

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

Chemical resistant protective gloves

Eye protection

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 | 190 - 220 °C 374 - 428 °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 |
| Density | 1.66 g/cm ³ 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 | 190 - 220 °C 374 - 428 °F Decomposes without ignition. Bulk quantities may self-ignite if heated |
| Viscosity | Not applicable |

10. STABILITY AND REACTIVITY**Reactivity****Incompatible materials:**

Metallic compounds.

CELOGEN[®] AZ 150, 1901, 2500, 9370

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) |

| Substances | CAS Number | Skin Corrosion / Irritation |
|------------------|------------|-----------------------------------|
| Azodicarbonamide | 123-77-3 | Not irritating to skin in rabbits |

| Substances | CAS Number | Eye damage/irritation |
|------------------|------------|--------------------------------|
| Azodicarbonamide | 123-77-3 | Non-irritating to rabbit's eye |

| Substances | CAS Number | Skin Sensitization |
|------------------|------------|--|
| Azodicarbonamide | 123-77-3 | Not sensitizing in laboratory animals (guinea pig, mouse). |

| Substances | CAS Number | Respiratory Sensitization |
|------------------|------------|--|
| Azodicarbonamide | 123-77-3 | May cause sensitization by inhalation. |

| Substances | CAS Number | Mutagenic Effects |
|------------------|------------|---|
| Azodicarbonamide | 123-77-3 | While some in vitro tests showed positive results, in vivo tests were negative. |

| Substances | CAS Number | Carcinogenic Effects |
|------------------|------------|--|
| Azodicarbonamide | 123-77-3 | Did not show carcinogenic effects in animal experiments. |

CELOGEN[®] AZ 150, 1901, 2500, 9370

| 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. |

| Substances | CAS Number | STOT - single exposure |
|------------------|------------|--|
| Azodicarbonamide | 123-77-3 | No significant toxicity observed in animal studies at concentrations requiring classification. |

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

| Substances | CAS Number | Aspiration hazard |
|------------------|------------|-------------------|
| Azodicarbonamide | 123-77-3 | 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 |

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 domestically under 49 CFR 172.102 special provision 38, and under certain circumstances, the material may be shipped as hazardous materials according to D.O.T. 49 CFR 171.25 (a) 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

CELOGEN[®] AZ 150, 1901, 2500, 9370

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 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 |
|---------------|------|----------------------|
|---------------|------|----------------------|

**** NONE ****

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

California Proposition 65

**** NONE ****

CHEMICAL INVENTORY

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

CELOGEN[®] AZ 150, 1901, 2500, 9370

Food contact

Azodicarbonamide:

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 45 ppm of the flour used.

21CFR177.1210 Closures with sealing gaskets for food containers additives not to exceed 2 wt. % of gasket composition. As a blowing agent 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

| | | | |
|-----------|-----------------|---------------|--------|
| Health: 2 | Flammability: 3 | Reactivity: 1 | PPI: X |
|-----------|-----------------|---------------|--------|

| | |
|----------|---|
| 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 |