

MATERIAL SAFETY DATA SHEET

CELOGEN® AZ150

Version: 1.4
Date of Issue: 03/19/2008
Date printed: 03/20/2008

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : CELOGEN® AZ150

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: 06/24/2007
(US) +1 800-535-9960
(Outside of the US) 1 + 225-267-3788
Email: CustomerService@Lioncopolymer.com

2. HAZARDS IDENTIFICATION

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.

3. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT	% BY WEIGHT
------------	-------------

Azodicarbonamide
CAS# 123-77-3

MATERIAL SAFETY DATA SHEET

CELOGEN® AZ150

Version: 1.4
Date of Issue: 03/19/2008
Date printed: 03/20/2008

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. FIRE-FIGHTING MEASURES

Flammable limits

Lower limit: Not available

Upper limit: Not available

Autoignition temperature:

Not available

NFPA CLASSIFICATION

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

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.

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.

MATERIAL SAFETY DATA SHEET

CELOGEN® AZ150

Version: 1.4
Date of Issue: 03/19/2008
Date printed: 03/20/2008

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				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

MATERIAL SAFETY DATA SHEET

CELOGEN® AZ150

Version: 1.4
Date of Issue: 03/19/2008
Date printed: 03/20/2008

Solidification	Not available
pH	Not available
Specific gravity (H2O=1)	Not available
Density	1.66 g/cm ³ at 25 °C
Vapor pressure	
Solubility in water	Slightly soluble, Decomposes in alkaline solution.
Solubility in organic solvents	No data available.
Partitioning coefficient	Not available
Flash point	Decomposes
Thermal decomposition	Decomposes without ignition., Bulk quantities may self ignite if heated.
Autoignition temperature	Not available
Upper explosion limits	Not available
Lower explosion limits	Not available
Percent volatiles	Not available

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

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

MATERIAL SAFETY DATA SHEET

CELOGEN® AZ150

Version: 1.4
Date of Issue: 03/19/2008
Date printed: 03/20/2008

Azodicarbonamide Acute toxicity - Inhalation:	Result: > 200 mg/l
--	--------------------

<u>Component data</u> Azodicarbonamide Skin irritation - Skin contact:	Species: Rabbit Result: Non irritating.
--	--

<u>Component data</u> Azodicarbonamide Eye irritation - Eye contact:	Species: Rabbit Result: Slight
--	-----------------------------------

<u>Component data</u> Azodicarbonamide Sensitization:	Species: Guinea pigs Result: Negative
---	--

<u>Component data</u> Azodicarbonamide Sensitization:	Species: Human Result: Positive
---	------------------------------------

MUTAGENICITY

<u>Component data</u> Azodicarbonamide <u>Genetic toxicity in vitro - Mutagenicity:</u> MUTAGENICITY	Test type: Ames bacterial assay Result: Positive
---	---

<u>Component data</u> Azodicarbonamide <u>Genetic toxicity in vitro - Mutagenicity:</u> MUTAGENICITY	Test type: Unscheduled DNA synthesis (UDS) Result: Negative
---	--

<u>Component data</u> Azodicarbonamide <u>Genetic toxicity in vitro - Mutagenicity:</u>	Test type: Chinese Hamster Ovary (CHO) Result: Negative
---	--

12. ECOLOGICAL INFORMATION

<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

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

DOT Classification

MATERIAL SAFETY DATA SHEET

CELOGEN® AZ150

Version: 1.4
Date of Issue: 03/19/2008
Date printed: 03/20/2008

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 (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.

MATERIAL SAFETY DATA SHEET

CELOGEN® AZ150

Version: 1.4
Date of Issue: 03/19/2008
Date printed: 03/20/2008

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 levelnot 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 levelnot 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)
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

Copyright
2007 Lion
Copolymer
Geismar,
LLC

THE OPINIONS EXPRESSED HEREIN ARE THOSE OF QUALIFIED EXPERTS WITHIN LION COPOLYMER GEISMAR, 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 LION COPOLYMER GEISMAR, LLC, IT IS THE USER'S OBLIGATION TO DETERMINE THE CONDITIONS OF SAFE USE OF THE PRODUCTS.