



MATERIAL SAFETY DATA SHEET

Revision: 1.4

04/30/2004

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Product name: CELOGEN® AZ

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	CELOGEN® AZ
Chemical name:	Azodicarbonamide

Supplier: Crompton Corporation
199 Benson Road
Middlebury, CT 06749, USA

Emergency telephone number: CHEMTREC (24 hours) 800-424-9300

Crompton Corporation Emergency Response (24 hours)
800-292-5898

For MSDS, Product Safety, or regulatory inquiries, call: 866-430-2775

2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS#	CONCENTRATION
Diazenedicarboxamide	123-77-3	100.0 %

3. 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.

4. FIRST AID MEASURES

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

Skin

MARKETED BY
**HARWICK STANDARD
DISTRIBUTION CORPORATION**
60 S. Seiberling Street • Akron, Ohio 44305

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

Inhalation

Remove to fresh air. Obtain medical attention.

Eye contact

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

5. FIRE-FIGHTING MEASURES

NFPA CLASSIFICATION

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

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

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

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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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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.

EXPOSURE LIMITS

No exposure limits have been established

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Physical state	Powder
Color	Orange-yellow
Odor	Characteristic

OTHER PROPERTIES

Boiling point	Not determined
Melting point	190 - 220 °C (374 - 428 °F) at STP unless specified below. Decomposes
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.

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Flash point

Decomposes

10. STABILITY AND REACTIVITY

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

Strong oxidizing agents.

Acids.

Bases.

Metallic compounds

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 toxicology Diazenedicarboxamide Acute toxicity - Swallowing:	LD50 - Rat Result: 6,800 mg/kg
Component toxicology Diazenedicarboxamide Acute toxicity - Skin absorption:	LD50 - Rabbit Result: > 2,000 mg/kg
Component toxicology Diazenedicarboxamide Acute toxicity - Inhalation:	LC50 - Rat Result: > 200 mg/l
Component toxicology Diazenedicarboxamide Skin irritation - Skin contact:	Species: Rabbit Result: Non irritating.
Component toxicology Diazenedicarboxamide Eye irritation - Eye contact:	Species: Rabbit Result: Slight
Component toxicology Diazenedicarboxamide Test results - Sensitization:	Species: Skin - Guinea pigs Result: Negative

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<u>Component toxicology</u> Diazenedicarboxamide <u>Test results - Sensitization:</u>	Species: - sensitization of the respiratory tract - Human Result: Positive
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<u>Component toxicology</u> Diazenedicarboxamide <u>Genetic toxicity in vitro -</u> <u>Mutagenicity:</u>	Test type: Ames bacterial assay Result: Positive
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<u>Component toxicology</u> Diazenedicarboxamide <u>Genetic toxicity in vitro -</u> <u>Mutagenicity:</u>	Test type: Unscheduled DNA synthesis (UDS) Result: Negative
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<u>Component toxicology</u> Diazenedicarboxamide <u>Genetic toxicity in vitro -</u> <u>Mutagenicity:</u>	Test type: Chinese Hamster Ovary (CHO) Result: Negative
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<u>Component toxicology</u> Diazenedicarboxamide <u>Genetic toxicity in vivo -</u> <u>Mutagenicity:</u>	Test type: Micronucleus test (mouse): negative.
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12. ECOLOGICAL INFORMATION

<u>Component ecotoxicology</u> Diazenedicarboxamide <u>Acute toxicity fish:</u>	- EC50 - Fathead Minnow Result: > 50 mg/l Exposure time: 48 h
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<u>Component ecotoxicology</u> Diazenedicarboxamide <u>Acute toxicity to aquatic</u> <u>invertebrates:</u>	- EC50 - Daphnia magna Result: 11 mg/l Exposure time: 48 h
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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

This product is not regulated by DOT.



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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 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:

**** NONE ****

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

Chemical name	CAS#	New Jersey TS Number
Diazenedicarboxamide	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.

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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.

FDA**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

FURTHER INFORMATION

MAY BE ON THE INVENTORY LIST BUT NOT NECESSARILY REGISTERED, (Korea, China, New Zealand) CONSULT REGULATORY SPECIALIST.

HMIS RATING

Health: 2	Flammability: 3	Reactivity: 1	PPI: X
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LEGEND

STP	Standard temperature and pressure
W/W	Weight/Weight
0 (HMIS)	Minimal 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

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The opinions expressed herein are those of qualified experts within Crompton Corporation. 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 Crompton Corporation, it is the user's obligation to determine the conditions of safe use of the products.