

**UNIROYAL
CHEMICAL**

Material Safety Data Sheet

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R-6

IDENTIFICATION

Trade Name: **CELOGEN® AZ Formulations***

CAS Number: **123-77-3 (major)**

Chemical Name: **Azodicarbonamide plus
less than 2% inert processing
additive**

Chemical Family: **Carbonamide**

*Applicable to AZ 1990, 1901-C, 2100, 2990, 3990, 5100, 5990, and 8990

SPECIAL REGULATORY HAZARDS

<u>Ingredient</u>	<u>CAS No.</u>	<u>Exposure Limit</u>	<u>OSHA (1910.1200)</u>	<u>EEC*</u>
Azodicarbonamide	123-77-3	ND	Sensitizer	Sensitizer
Amorphous silica	112945-52-5	10 mg/m ³ (ACGIH)	nuisance particulates	NA

Hazard assessment based on available data.

Transportation: **NA**

PHYSICAL DATA

Appearance and Odor: **Fine yellow powder; characteristic odor**

Solubility: **Slightly soluble in water. Decomposes in
alkaline solutions**

Specific Gravity (H₂O = 1): **1.67 @ 25/25°C**

Melting Point: **Decomposes at 401-419°F (205-215°C)**

Vapor Pressure @ 20°C: **NA**

Boiling Point: **NA**

Vapor Density (Air = 1): **NA**

Other Data: **—**

Volatility @ 70°F: **Not volatile below decomposition
temperature**

FIRE AND EXPLOSION HAZARD DATA

Flash Point: **NA [Decomposes at 401°F (200°C)
without ignition]**

Autoignition Temp: **ND**

Extinguishing Media: **Water spray, dry chemical**

Flammable Limits: **ND**

Special Fire Fighting Procedures: **Protect against inhalation of decomposition products.**

Unusual Hazards: **Large volumes of gas are evolved during decomposition. May form explosive dust-air mixtures.
Will continue to burn once ignited.**

REACTIVITY DATA

Stability: **Stable below decomposition temperature. Keep away from heat, sparks and open flame.**

Incompatibility: **Strong oxidizers, acids, bases & metallic compounds will reduce decomposition temperature.**

Decomposition Products: **Thermal decomposition products include nitrogen, oxides of carbon, ammonia and traces
of cyanic acid. Solid residue contains urazol, biurea, cyamelide and cyanuric acid. Combustion products are oxides of
carbon and nitrogen, water and large quantities of smoke and ash.**

NA = Not Applicable

ND = Not Determined

*European Economic Community

Uniroyal makes no representation or warranty with respect to the information in this Material Safety Data Sheet. The information is however, as of this date provided, true and accurate to the best of Uniroyal's knowledge. This list of information is not intended to be all inclusive. Actual conditions of use and handling may require considerations of information other than, or in addition to, that which is provided herein.

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**HARWICK STANDARD
DISTRIBUTION CORPORATION**

60 S. Seiberling Street - Akron, Ohio 44305
Akron - Chicago - Northeast - Southern - West Coast

SPECIAL PROTECTION INFORMATION

Engineering Controls: Local exhaust ventilation is strongly recommended for all hot processing and powder handling. Protect closed handling systems against possible dust explosions. Avoid dust accumulation on building or equipment surfaces.

Personal Protection Equipment: Avoid all personal contact. Observe good personal hygiene. Chemical resistant gloves and goggles should be worn when handling. If ventilation is inadequate, a NIOSH-certified respirator for dust or organic vapor should be used as appropriate

STORAGE, SPILLS AND DISPOSAL INFORMATION

Storage: Store in cool, dry place in closed containers. Avoid any source of heat close to 205°C (401°F).

Spills: Vacuum up using an explosion proof or non-sparking vacuum cleaner to avoid creating dust. Transfer into secure containers for proper disposal. Use personal protective equipment as outlined above.

Disposal: In accordance with any applicable local, state or federal regulations regarding disposal of organic waste.

Environmental Information: These data are for Azodicarbonamide:
 Fathead Minnow 48 hour LC50 - >50 mg/l
 Daphnia Magna 48 hour EC50 - 11 mg/l
 Ready Biodegradability (28 day) >70% degradable
 These data indicate that azodicarbonamide is slightly toxic to practically non-toxic in aquatic species and is biodegradable.

HEALTH RELATED DATA

Specific Hazard(s): Contact with eyes may cause irritation. Repeated minimal inhalation exposure can cause respiratory sensitization and occupational asthma. Exposure to decomposition gases can cause irritation to eyes, lungs, and mucous membranes. Individuals with respiratory problems should avoid inhalation exposure to this material.

Primary Route(s) of Entry: Inhalation, skin absorption.

First Aid Procedures:
Eye contact: Flush with water for 15 minutes. Get medical attention.
Skin contact: Wash with soap and water.
Inhalation: Remove to fresh air. Get medical attention.
Ingestion: Drink a large quantity of water to dilute.

Toxicology Information:

The following data are for azodicarbonamide:

Oral toxicity: LD50 (rats) - 6800 mg/kg

Dermal toxicity: LD50 (rabbits) - >2000 mg/kg

Inhalation toxicity: LC50 (rats) - >200 mg/l (1hr.)

Irritation: eye (rabbits) - negative
 skin (rabbits) - negative

Sensitization: respiratory - positive based on human experience.
 skin (guinea pigs) - negative

Genotoxicity: Ames *Salmonella* - positive
 CHO-HGPRT - negative
 Rat hepatocyte UDS - negative
 Mouse micronucleus - negative

Carcinogenic per NTP _____ IARC _____ OSHA _____ None X