MATERIAL SAFETY DATA SHEET

MSDS No. C225031
Date Issued: 10/31/95
Date Revised: 03/15/96

UNIROYAL CHEMICAL

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I. IDENTIFICATION

Trade Name: **CELOGEN 765A**

CAS Number: 123-77-3 (major)

Chemical Name: Modified Azodicarbonamide

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

Chemical Family: Carbonamide

II. SPECIAL REGULATORY HAZARDS

INGREDIENT	CAS No.	EXPOSURE LIMIT	OSHA(1910.1200)	EEC*
Product	Mixture	ND	Flammable solid	Flammable solid
Azodicarbonamide	124-77-3	ND	Sensitizer	Sensitizer

Transportation:
DOT/IMO/ICAO/IATA: Hazard Class: 4.1 Flammable Solid; ID No. UN3226

III. PHYSICAL DATA

Appearance/Odor: Yellow-orange powder; slightly musty odor
Solubility: Slightly soluble in water; Decomposes in alkaline solutions
Spec Gravity (H_2O=1): 1.65 @ 25/25°C
Volatility @70°F: Not volatile below decomposition temperature
Vapor Pressure @20°C: NA
Vapor Density (Air=1): NA
Melting Point: Decomposes at 152°-162°C
Boiling Point: NA
Other Data: NA

IV. FIRE AND EXPLOSION HAZARD DATA

Flash Point: NA (Decomposed w/o ignition)
Autoignition Temp: >1015°F (546°C)
Flammable Limits in Air: ND
Extinguishing Media: Water spray, dry chemical.

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 mixture. Will continue to burn once ignited self-reactive.

V. REACTIVITY DATA

Stability: See 3rd page

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

Decomposition Products: See 3rd page

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. This 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 is provided herein.

VI. SPECIAL PROTECTION INFORMATION

ENGINEERING CONTROLS: See 3rd page

PERSONAL PROTECTION EQUIPMENT:
Avoid all personal contact. Observe good personal hygiene. Chemical resistant gloves and goggles should be worn when handling. In the absence of adequate ventilation, use NIOSH-approved dust cartridge respirator.

VII. STORAGE, SPILLS, AND DISPOSAL INFORMATION

STORAGE: See 3rd page

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 protection equipment as outlined above.

DISPOSAL: In accordance with any EPA/RCRA, 40CFR261.21 (a) (2) Ignitability, D001.

ENVIRONMENTAL: Environmental effects have not been determined.

VIII. HEALTH RELATED DATA

SPECIAL 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.
Skin contact:	Wash thoroughly with soap and water.
Inhalation:	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Ingestion:	Drink large quantities of water to dilute.

TOXICOLOGY INFORMATION:
See 3rd page

- ADDITIONAL INFORMATION PAGE -

STABILITY: Stable below decomposition temperature. Heat, sparks or open flames will cause material to decompose, emitting dense white smoke.

ENGINEERING CONTROLS: Local exhaust ventilation strongly recommended. Protect closed handling systems against possible dust explosions. Avoid dust accumulation on building or equipment surfaces. Off-gasses developed during use should be vented outside of workplace.

1. Limit quantity of product in processing or use area to no more than one container. Reclose container after any transfer operation.
2. Equipment should be designed and used to prevent sparks due to electrical discharges or metal on metal contact. All metal equipment should be effectively grounded.
3. Excessive heat and pressure buildup should be avoided during any mixing or processing operations.

STORAGE: Store in cool, dry place in closed containers. Keep away from heat, sparks and open flame. Separate from combustible storage by 8 ft. aisles or isolate in detached building. Do not store over 4 ft. high unless sprinklers are hydraulically designed to produce a density of 0.5 gpm/sq.ft. all over entire area of building.

TOX INFORMATION: Following data is for azodicarbonamide:

Inhalation toxicity:	LC50 (rats)	-	>200 mg/l (1 hr.)
Oral toxicity:	LD50 (rats)	-	6800 mg/kg
Dermal toxicity:	LD50 (rabbits)	-	>2000 mg/kg
Irritation:	eye (rabbits)	-	slight
	skin (rabbits)	-	negative
Sensitization:	respiratory - positive based on human exper.		
	skin (guinea pigs) - negative		
Genotoxicity:	Ames Salmonella	-	positive
	CHO HGPRT	-	negative
	Rat hepatocyte UDS	-	negative
	Mouse micronucleus	-	negative

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, nitrogen, zinc, water and large quantities of smoke and ash.

SARA TITLE III (40CFR 372)

SECTION 313 TOXIC CHEMICALS NOTIFICATION

TOXIC CHEMICAL	CAS #	% (BY WT.)
Zinc Compound	NA	up to 10%

Carcinogen per NTP __ IARC __ OSHA __ NONE _X_