



Material Safety Data Sheet

Uniroyal Chemical Company, Inc. **UNIROYAL** Emergency Phone: (203) 723-3670
 World Headquarters CHEMTREC Transportation Emergency Phone: 1-800-424-930
 Middlebury, CT 06749 SAFETY DATA Information (203) 573-3303

MSDS No. V768005 Date Issued: 5/21/86

IDENTIFICATION

Trade Name: **ROYALCAST® 3101 Part A** CAS Number: **NA**

Chemical Name: **Reaction product of polyether blend with diphenylmethane diisocyanate (MDI)** Chemical Family: **Polyurethane**

SPECIAL REGULATORY HAZARDS

| Ingredient | CAS No. | Exposure Limit | OSHA (1910.1200) | EEC* |
|------------|----------|---------------------------|------------------|------------|
| MDI | 101-68-8 | 0.02 ppm, ceiling (ACGIH) | Sensitizer | Sensitizer |

Hazard assessment based on available data.

Transportation: **NA**

PHYSICAL DATA

Appearance and Odor: **Viscous liquid; slight odor**
 Solubility: **Reacts in water; soluble in THF, DMF or methylene chloride**
 Melting Point: **ND**
 Boiling Point: **ND**
 Other Data: **Solification Point: 60°F (22°C) CC**
Reactive isocyanate (NCO): 6.5 - 10.0

Specific Gravity (H₂O = 1): **1.18**
 Vapor Pressure @ 20°C: **ND**
 Vapor Density (Air = 1): **ND**
 Volatility @ 70°F: **Low**

FIRE AND EXPLOSION HAZARD DATA

Flash Point: **400°F (204°C) CC** Autoignition Temp. **ND**
 Extinguishing Media: **Water spray, dry chemical** Flammable Limits: **ND**
 Special Fire Fighting Procedures: **Protect against inhalation of cyanate vapors and other decomposition/combustion products.**
 Unusual Hazards: **None identified.**

REACTIVITY DATA

Stability: **Stable at ambient temperatures and pressures.**
 Incompatibility: **Avoid contamination with water, strong oxidizers or alcohol.**
 Decomposition Products: **High temperatures will release cyanates and hydrocarbons. Oxides of carbon, nitrogen and small amount of HCN under burning conditions.**

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 communications of information other than, or in addition to, that which is provided herein.

SPECIAL PROTECTION INFORMATION

Engineering Controls: Local exhaust ventilation strongly recommended.

Personal Protection Equipment: Impervious gloves and goggles should be worn. Avoid breathing vapors. In the absence of good ventilation, under emergency situations or for high concentrations, self-contained or air-supplied respiratory protection is recommended.

STORAGE, SPILLS AND DISPOSAL INFORMATION

Storage: Store away from sources of direct heat and moisture. Seal containers with a dry nitrogen blanket and keep closed when not in use. Moisture contamination will evolve CO₂ and create pressure in closed systems.

Spills: Absorb on inert carrier. Transfer to open containers outside or in well-ventilated area. Soak with dilute ammonia hydroxide or water alcohol mixture. Allow time for reaction to be complete before disposal.

Disposal: In a well ventilated area, fill drums with a couple of inches of water. Leave bung off and slowly shake and roll drum to allow water contact. Leave open to air for sufficient time to cure. Cured polyurethane is not a RCRA hazardous waste. Dispose of in accordance with local, state or federal regulations regarding polymeric waste. **WARNING!** Burning this material can produce toxic fumes.

Environmental Information: Environmental effects have not been determined.

HEALTH RELATED DATA

Specific Hazard(s): Contact with eyes and skin may cause irritation. Repeated, minimal contact with skin may cause sensitization. Exposure to vapor may cause irritation to eyes, lungs and mucous membranes. Repeated inhalation of minimal amounts of vapor may cause respiratory sensitization and asthma. Individuals with respiratory problems should avoid 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: Wipe excess. Wash with rubbing alcohol, if available, followed by soap and water. Discard shoes if contaminated.

Inhalation: Remove to fresh air. **Physician** - treat for potential respiratory irritation.

Toxicology Information:

Sensitization: Respiratory and dermal sensitizer based upon human experience (MDI)

Mutagenicity: Ames *Salmonella* - positive (MDI)

Carcinogenic per NTP _____ IARC _____ OSHA _____ None X



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UNIROYAL Emergency Phone: (203) 723-3670
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SAFETY DATA Information (203) 573-3303

MSDS No. V768006

Date Issued: 8/6/87

IDENTIFICATION

Trade Name: ROYALCAST® 3101 Part B

CAS Number: Mixture

Chemical Name: Polyol and organic amine curative blend
Chemical Family: Polyol and Organic Amine

SPECIAL REGULATORY HAZARDS

| <u>Ingredient</u> | <u>CAS No.</u> | <u>Exposure Limit</u> | <u>OSHA (1910.1200)</u> | <u>EEC*</u> |
|-------------------|----------------|-----------------------|-------------------------|---------------|
| Product | NA | ND | Not hazardous | Not hazardous |

Hazard assessment based on available data.

Transportation: NA

PHYSICAL DATA

Appearance and Odor: Transparent liquid; characteristic odor

Solubility: Practically insoluble in water solvents

Specific Gravity (H₂O = 1): ND

Vapor Pressure @ 20°C: ND

Melting Point: 70°F (22°C)

Vapor Density (Air = 1): ND

Boiling Point: ND

Volatility @ 70°F: Slight

Other Data: NA

FIRE AND EXPLOSION HAZARD DATA

Flash Point: 400°F (204°C) TOC

Autoignition Temp: ND

Extinguishing Media: Water spray, dry chemical

Flammable Limits: ND

Special Fire Fighting Procedures: Protect against inhalation of combustion products.

Unusual Hazards: None identified.

REACTIVITY DATA

Stability: Stable at ambient temperatures and pressures.

Compatibility: Strong acids and oxidizers.

Decomposition Products: Oxides of carbon and nitrogen under burning conditions.

NA = Not Applicable

ND = Not Determined

*European Economic Community

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SPECIAL PROTECTION INFORMATION

Engineering Controls: Sufficient ventilation to minimize vapor exposure.

Personal Protection Equipment: Avoid all personal contact. Observe good personal hygiene. Impervious gloves and goggles should be worn when handling. In the absence of adequate ventilation, use NIOSH-certified respiratory protection for organic vapors.

STORAGE, SPILLS AND DISPOSAL INFORMATION

Storage: Store away from sources of direct heat in a dry area. Keep containers closed when not in use.

Spills: Absorb on inert material. Shovel into secure containers for proper disposal. Use personal protective equipment as outlined above.

Disposal: In accordance with any applicable local, state, or federal regulations.

Environmental Information: Environmental effects have not been determined.

HEALTH RELATED DATA

Specific Hazard(s): Contact with eyes or skin may cause irritation. No chronic health hazards have been identified. There are no known medical conditions that are aggravated by 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 with soap and water.

Inhalation: Remove to fresh air.

Toxicology Information:

There is no toxicology data on this material.

Carcinogenic per NTP _____ IARC _____ OSHA _____ None X