

# Material Safety Data Sheet

According to ANSI Z400.1-2003

Date Printed: 07-11-2006

## Section 1 - Product and Company Information

### Product Name: Catalyst 3 for Waterborne Formulations

**COMPANY IDENTIFICATION:** Urethane Supply Company  
1128 Kirk Rd.  
Rainsville, AL 35986

**EMERGENCY TELEPHONE NUMBER**  
**24 Hour Emergency Contact** 800-424-9300 (703-527-3887)  
**Customer Information Number** 256-638-4103

## Section 2 - Hazards Identification

**Appearance:** Clear yellow liquid**Odor:** Mild Amine

### Hazards of Product:

GASTROINTESTINAL IRRITANT. RESPIRATORY SENSITIZER.  
SKIN IRRITANT. RESPIRATORY IRRITANT. SKIN  
SENSITIZER. EYE CORROSIVE.

**Signal Word Hazard:** Flammable Liquid

### HMS Rating (Scale 0 - 4)

<b>HEALTH</b>	<b>* 3</b>	Health = 3
<b>FIRE</b>	<b>1</b>	Fire = 1
<b>PHYSICAL</b>	<b>1</b>	Physical = 1
<b>PERSONAL PROTECTION</b>	<b>B</b>	Personal Protection = B

### NFPA Ratings



## Potential Health Effects

**Eye Contact:** Contact with skin may be harmful. May cause allergic skin reaction.

**Skin Contact:** This product is a moderate skin irritant based on animal studies. This product induced skin sensitization in an animal study. This product may induce skin sensitization in humans.

**Skin Absorption:** May cause allergic skin reaction.

**Skin Sensitization:** This product induced skin sensitization in an animal study. This product may induce skin sensitization in humans.

**Inhalation:** Vapor or mist may cause headaches, nausea, and irritation of nose, throat and lungs.

**Ingestion:** Pain or discomfort in the mouth, chest and abdomen. Nausea, vomiting, diarrhea, dizziness, drowsiness, faintness, weakness and collapse.

**Repeated Exposure:** Aziridine based crosslinkers caused mutations and chromosomal aberrations in several in vitro and in vivo genotoxicity studies. Based on these studies and animal carcinogenicity data on similar substances, this material should be treated as a possible carcinogen.

## Section 3 - Composition/Information on Ingredients

Component	CAS #	Amount
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Polyfunctional Aziridine	64265-57-2	99.7%
2-dimethylaminoethanol	108-01-0	0.30%
2-methylaziridine	75-55-8	<0.0001%

## Section 4 - First-Aid Measures

**Eye Contact:** Immediately flush the eyes with large quantities of running water for a minimum of 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eye and lids with water. Do not attempt to neutralize with chemical agents. Obtain medical attention as soon as possible. Oils or ointments should not be used at this time. Continue the flushing for an additional 15 minutes if a physician is not immediately available.

**Skin Contact:** Wash off of skin with plenty of soap and water. If redness, itching or burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

**Inhalation:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Consult medical personnel. If breathing is labored, give oxygen.

**Ingestion:** Do not induce vomiting. Give one or two glasses of water to drink and refer to medical personnel or take direction from either a physician or a poison control center. Never give anything by mouth to an unconscious person.

**Notes to Physician:** Medical personnel should evaluate persons with chronic pulmonary disease before those workers handle this product.

**Medical Conditions Aggravated by Exposure:** N/A

## Section 5 - Fire Fighting Measures

**Extinguishing Media:** Water fog, foam, carbon dioxide, dry chemical, halogenated agents. Water may be used to cool closed containers to prevent pressure buildup.

**Special Protective Equipment for Firefighters:** Wear self-contained breathing apparatus with full face piece and full protective clothing. If contact occurs with material or its solutions, immediately flush with water and remove contaminated clothing.

**Unusual Fire and Explosion Hazards:** Heat/impurities may increase temperature/build pressure/rupture closed containers, spreading fire, increasing risk of burns/injuries.

## Section 6 - Accidental Release Measures

**Steps to be Taken if Material is Released or Spilled:** Contain spill. Soak up material with absorbent and shovel into a chemical waste container. Decontaminate with 1% acetic acid solution or one part white vinegar to four parts water.

**Personal Precautions:** Wear skin, eye, and respiratory protection during cleanup.

**Environmental Precautions:**

## Section 7 - Handling and Storage

**General Handling:** Open containers in a well-ventilated area to avoid exposure to residual propyleneimine that may have collected in headspace. Avoid breathing vapors or aerosols. Prevent skin and eye contact. A sensitized individual should not be exposed to the product which caused the sensitization.

**Other Precautions:**

**Storage:** Keep containers tightly sealed. Store in a cool, well ventilated area away from heat, sources of ignition, direct sunlight, and incompatible materials.

## Section 8 - Exposure Controls / Personal Protection

Component	Source	Type	Value	Remarks
2-methylaziridine	NIOSH	REL	2 ppm 5mg/m <sup>3</sup>	
2-methylaziridine	OSHA Z1	PEL	2 ppm 5 mg/m <sup>3</sup>	Can be absorbed through the skin

### Personal Protection

**Eye/Face Protection:** Wear chemical tight goggles and full face shield.

**Skin Protection:** Take all precautions to prevent skin contact. Use gloves, arm covers and apron determined to be impervious under the conditions of use. Additional protection, such as full body suite and boots may be required depending on conditions. Remove contaminated clothing and wash before re-wearing. Wash separately from other laundry.

**Respiratory Protection:** Where engineering measures are not feasible or to provide supplementary respiratory

protection, NIOSH certified full facepiece supplied-air respirators provide the highest protection. Where the use of supplied-air respirators is not feasible, NIOSH certified full facepiece air purifying respirators equipped with high efficiency filters may be used. All respirator use should be managed under a respiratory protection program meeting the requirements of 29CFR1910.134.

**Hygienic Measures:** Eyewash station and safety shower must be readily available in work area.

**Other Protection Measures** Wear protective clothing to prevent contact with this product.

#### Engineering Controls

This product has a very low vapor pressure, precluding significant inhalation exposure under normal conditions, used which may generate aerosol mists, such as spray application, need to be well controlled to prevent significant inhalation exposure which presents serious health risks such as respiratory sensitization. Where aerosol mists may be generated, the operation should be enclosed as much as possible, with extraction ventilation provided at any required openings. A properly engineered spray booth, equipped with downdraft or lateral flow ventilation, is a possible engineering control measure. Air exhausted for the enclosure should be filtered and discharged to a safe location, preferably outdoors.

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## Section 9 - Physical and Chemical Properties

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<b>Appearance:</b>	Opaque, medium viscosity, pourable liquid
<b>Color:</b>	Pale yellow
<b>Odor:</b>	Mild amine
<b>ph:</b>	basic
<b>Flash Point:</b>	> 100°C (>212°F)
<b>Upper Flammable Limit:</b>	None determined
<b>Lower Flammable Limit:</b>	None determined
<b>Boiling Point:</b>	<100C
<b>Vapor Density:</b>	Lighter than air
<b>Specific Gravity:</b>	1.068
<b>Solubility in Water:</b>	Soluble

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## Section 10 - Stability and Reactivity

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**Conditions To Avoid:** Avoid contamination with acidic materials, heat, direct sunlight, ultraviolet radiation, strong oxidizing conditions and freezing conditions. Unstable at elevated temperatures and pressures, or may react with water or acids with some release of energy, but not violently.

**Incompatible Materials:** Acidic materials, anhydrides, strong oxidizers.

**Hazardous Polymerization:** May occur if mixed with acidic materials.

**Hazardous Decomposition Products:** Carbon oxides, Nitrogen oxides

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## Section 11 - Toxicological Information

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#### Acute Toxicity

##### Ingestion

<0.0001%

##### Skin Absorption

<0.0001%

##### Inhalation

<0.0001%

##### Sensitization

Known human skin sensitizer based on human experience. Known respiratory sensitizer.

##### Chronic Toxicity and Carcinogenicity

Aziridine based crosslinkers caused mutations and chromosomal aberrations in several in vitro and in vivo genotoxicity studies. Based on these studies and animal carcinogenicity data on similar substances, this material should be treated as a potential carcinogen.

##### Corrosivity

Corrosive to the eyes

##### Eye Irritation

Eye corrosive based on animal studies.

##### Skin Irritation

Moderate skin irritant based on animal studies.

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## Section 12 - Ecological Information

### CHEMICAL FATE

### ECOTOXICITY

No data

## Section 13 - Disposal Considerations

### Disposal Method:

Incinerate in approved facility. Do not incinerate in closed containers. Dilute with clean low viscosity fuel. Untreated material should not be released to the environment. Discarded product is not a hazardous waste under RCRAA, but may be regulated by other jurisdictions.

**Container Disposal:** Empty container contains potentially hazardous residue. Observe all hazard precautions. May contain corrosive material. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product from container and puncture or otherwise destroy empty container before disposal.

## Section 14 - Transport Information

### DOT

Proper Shipping Name: Not Regulated by US DOT

## Section 15 - Regulatory Information

Superfund Amendments and Reauthorization Act of 1986 (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

The following table lists hazardous components and the regulatory lists for which they are required to be reported.

Component	CAS #	Amount	SARA 313 Listed	Know to California to cause cancer	Pennsylvania Hazardous Substance List	Massachusetts Hazardous Listed	Rhode Island Listed	CERCLA	EPA Cancerogenity	IARC Cancerogenity	NTP Cancerogenity	TLV Canerogenity	NIOSH Cancerogenity	OSHA Cancerogenity

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**Section 16 - Other Information**

**Legend**

- ACGIH American Conference of Governmental Hygenists
- CFR Code of Federal Regulations
- HMIS Hazardous Materials Identification System
- MSDS Material Safety Data Sheet
- NFPA National Fire Protection Association
- NIOSH National Institute for Occupational Safety and Health
- OEL Occupational Exposure Limit
- RCRA Resource Conservation and Recovery Act
- REL Recommended Exposure Level
- STEL Short Term Exposure Limit
- TLV Threshold Limit Value
- TLV Threshold Limit Value
- TWA Time Weighted Average
- TWA Time Weighted Average

**This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.**