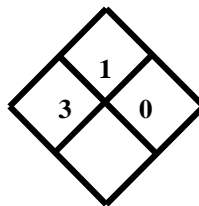


P.O. Box 4980  
The Woodlands, TX 77387-4980

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**Effective Date:** 4/8/08**Material Safety Data Sheet**

MSDS No: 6086

**1. PRODUCT IDENTIFICATION****Trade Name:** RenCast 4036**Chemical Family:** Epoxy

NFPA RATING

<b>Health:</b>	<b>3</b>
<b>Flammability:</b>	<b>1</b>
<b>Reactivity:</b>	<b>0</b>
<b>Personal Protection:</b>	

HMIS RATING

**Synonyms:**  
RP 4036 Resin

**Intended Use or Product Type:** Heat resistant casting resin**2. COMPOSITION / INFORMATION ON INGREDIENTS**

O S H A	CAS No.	CHEMICAL IDENTITY	EXPOSURE LIMITS				CARCINOGEN STATUS			
			ACGIH		OSHA		MFR.	IARC	NTP	OSHA
			TWA	STEL	PEL	STEL				
*	1317-65-3	Limestone  Common Name: Calcium carbonate Concentration: 10.00 - 30.00 % by wt	10 mg/m3	NE	5 mg/m3	NE	NE	NR	NR	NR
*	1675-54-3	Oxirane, 2,2'-[(1-Methylethylidene)bis(4,1-Phenyleneoxymethylene)]bis-Diglycidyl ether of bisphenol A  Common Name: Diglycidyl ether of bisphenol A Concentration: 10.00 - 30.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	21645-51-2	Aluminum hydroxide Hydrated Alumina  Common Name: Hydrated Alumina Concentration: 5.00 - 10.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	2425-79-8	Oxirane, 2,2'-[1,4-Butanediylbis(Oxymethylene)]bis-Butanediol diglycidyl ether  Common Name: Bisphenol A diglycidyl ether Concentration: 1.00 - 5.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane Bisphenol A diglycidyl ether polymer  Common Name: Bisphenol A diglycidyl ether polymer Concentration: 10.00 - 30.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	28064-14-4	Phenol, polymer with	NE	NE	NE	NE	NE	NR	NR	NR

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	Common Name: Concentration	formaldehyde, glycidyl ether Epoxy Phenol Novolac 10.00 - 30.00 % by wt								
*	7429-90-5 Concentration	Aluminum 30.00 - 60.00 % by wt	2 mg/m3	NE	5 mg/m3	NE	NE	NR	NR	NR

NE = Not Established NR = Not Reviewed \* = OSHA Hazardous Ingredient

**3. HAZARDS IDENTIFICATION**

**Emergency Overview:** Causes skin and eye irritation. May cause allergic skin and respiratory reactions.

**Primary Route(s) of Entry:** Dermal; heated product may produce inhalable vapors.

**4. FIRST AID MEASURES**

**Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

**Skin:** Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes. Seek immediate medical attention.

**Inhalation:** Remove to fresh air. Seek immediate medical attention.

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Seek immediate medical attention.

**Overexposure Effects:** Causes severe skin irritation. Causes eye irritation. May cause skin burns and allergic skin reaction.

**Medical Conditions Aggravated by Exposure:** Skin and eye conditions.

**Additional Information:** Referral to a physician is recommended if there is any question about the seriousness of any injury.

**5. FIRE FIGHTING MEASURES**

**Flash Point:** > 300°F (> 149 °C)  
**Flash Point Method Used:** PMCC  
**Flammable Limits in Air (Lower - % by volume):** Not established  
**Flammable Limits in Air (Upper - % by volume):** Not established

**Fire Fighting Extinguishing Media:** Carbon dioxide, dry chemical, foam, water.

**Fire Fighting Equipment:** Use self-contained breathing apparatus.

**Fire and Explosion Hazards:** Decomposition and combustion products may be toxic.

**6. ACCIDENTAL RELEASE MEASURES**

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**Accidental Release Measures:** Remove spillage by absorbing in absorbent material.

## **7. HANDLING AND STORAGE**

**Signal Word:** Warning!

**Precautions:** Can cause skin irritation, eye irritation, and allergic skin reaction. Can be harmful if swallowed. Avoid contact with eyes, skin, and clothing. Avoid tasting or swallowing. Wash thoroughly after handling.

**Other Handling Information:** Nuisance dust may be generated when sanding or sawing cured material.

## **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Skin Protection:** Wear impermeable gloves.

**Respiratory Protection:** Use NIOSH approved organic vapor cartridge respirator when vapor/mist exposure is likely.

**Eye Protection:** Wear splash-proof chemical goggles.

**Engineering Controls:** General mechanical and local exhaust in accordance with ACGIH recommendations.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Color:</b>	Grey
<b>Odor:</b>	Slight
<b>Physical State:</b>	Liquid
<b>Solubility in Water:</b>	Negligible
<b>Vapor Pressure:</b>	0.0073 mm Hg at 80°C (176 °F)
<b>Specific Gravity:</b>	1.73 - 1.78 (water = 1)
<b>Boiling Point:</b>	> 350°F (> 177 °C)
<b>Evaporation Rate:</b>	Not Determined
<b>Vapor Density:</b>	Not Determined
<b>VOC:</b>	0 g/L
<b>pH:</b>	Not Determined
<b>Coefficient of water/oil:</b>	Not Evaluated

## **10. STABILITY AND REACTIVITY**

**Conditions to Avoid:** Excessive heat for prolonged periods of time.

**Stability:** Stable.

**Incompatibility:** Strong oxidizers, acids and bases.

**Hazardous Decomposition Products:** Combustion may form toxic materials, such as carbon dioxide, carbon monoxide.

**Hazardous Polymerization:** Will not occur.

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**11. TOXICOLOGICAL INFORMATION****Sensitization:** Possible in susceptible individuals.**Skin Irritation:** Irritant.**Eye Irritation:** Irritant. Irritant.**12. ECOLOGICAL INFORMATION****13. DISPOSAL CONSIDERATIONS****Waste Disposal Method:** Consult qualified local or corporate personnel for method that will comply with local, state and federal health and environmental regulations.**14. TRANSPORT INFORMATION****DOT: Non-Bulk****Proper Shipping Name:** Not Regulated**IATA: Non-Bulk****Proper Shipping Name:** Not Regulated**IMDG: Non-Bulk****Proper Shipping Name:** Not Regulated**TDG: Non-Bulk****Proper Shipping Name:** Not Regulated**Department of Transportation:** Not regulated as a hazardous material by the U.S. Dept. of Transportation (DOT) 49 CFR 172.101 hazardous materials table.**15. REGULATORY INFORMATION****US Federal Regulations:****Occupational Safety and Health Act (OSHA):** This product is considered to be a hazardous chemical under the OSHA Hazard Communication Standard (29 CFR 1910.1200).**Resource Conservation and Recovery Act (RCRA):** Not a hazardous waste under RCRA (40 CFR 261).**SARA Title III: Section 313 Toxic Chemical List (TCL):** This product contains a toxic chemical(s) for routine annual toxic chemical release reporting under section 313 (40 CFR 372). This information must be included in all MSDS's copied or distributed for this material.

Chemical Name: Aluminum

Percent in Composition: 30 - 60 % by wt

Comment:

**TSCA Section 8(b) - Inventory Status:** All chemical components of this product are in compliance with TSCA inventory requirements.

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**TSCA Section 12(b) - Export Notification:** This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

### **International Regulations:**

**Australian Inventory Status:** This product contains only chemicals which are currently listed on the Australian Inventory of Chemical Substances.

**Canadian Inventory Status:** This product contains components which are included on the Domestic Substances List (DSL) and the Non-Domestic Substances List (NDSL).

**Canadian WHMIS:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. D2B

**European Inventory Status (EINECS):** This product contains only chemicals that are currently listed on the European Inventory of Existing Commercial Chemical Substances (EINECS).

**Japanese Inventory Status:** This product contains only chemicals currently listed on the Japanese Ministry of International Trade and Industry List of Existing and New Chemical Substances.

### **State Regulations:**

**California Proposition 65:** This product does not contain any chemicals currently on the California list of Known Carcinogens and Reproductive Toxins.

**Pennsylvania Right-to-Know:** The following is required composition information:

Chemical Name: Aluminum  
CAS Number: 7429-90-5  
Comment: Environmental Hazardous Substance

Chemical Name: Limestone  
Common Name: Calcium carbonate  
CAS Number: 1317-65-3  
Comment: Hazardous Substance

Chemical Name: Oxirane, 2,2'-[(1-Methylethylidene)bis(4,1-Phenyleneoxymethylene)]bis-  
Common Name: Diglycidyl ether of bisphenol A  
CAS Number: 1675-54-3  
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane  
Common Name: Bisphenol A diglycidyl ether polymer  
CAS Number: 25068-38-6  
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Phenol, polymer with formaldehyde, glycidyl ether  
Common Name: Epoxy Phenol Novolac  
CAS Number: 28064-14-4  
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Aluminum hydroxide  
Common Name: Hydrated Alumina

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CAS Number: 21645-51-2

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Oxirane, 2,2'-[1,4-Butanediylbis(Oxymethylene)]bis-

Common Name: Butanediol diglycidyl ether

CAS Number: 2425-79-8

Comment: Not on Pennsylvania Hazardous Substance List

**16. OTHER INFORMATION**

<b>MSDS No:</b>	6086
<b>Approved By:</b>	Dianne Blessing
<b>Title:</b>	EH&S Specialist

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