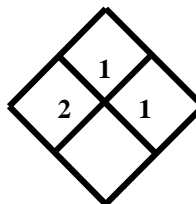


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**Effective Date:** 12/4/09**Material Safety Data Sheet**

MSDS No: 5732

**1. PRODUCT IDENTIFICATION****Trade Name:** RenGel 1320**Chemical Family:** Epoxy

NFPA RATING

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

HMIS RATING

**Synonyms:**  
 CGL 1320 Resin
**Intended Use or Product Type:** Epoxy 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				
*	1333-86-4	Carbon Black  Common Name: Concentration Carbon black 1.00 - 5.00 % by wt	3.5 mg/m3	NE	3.5 mg/m3	NE	NE	Yes	NR	NR
*	2425-79-8	Oxirane, 2,2'-[1,4-Butanediylbis(Oxymethylene)]bis-Butanediol diglycidyl ether  Common Name: Concentration 10.00 - 30.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	28768-32-3	Oxiranemethanamine, N,N'-(methylenedi-4,1-phenylene)bis[N-(oxiranylmethyl)-N,N,N',N'-Tetraglycidylbis(p-aminophenyl)methane  Common Name: Concentration 30.00 - 60.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	71011-26-2	Quaternary ammonium compounds, benzyl(hydrogenated tallow alkyl)dimethyl, salts with hectorite  Common Name: Concentration Quaternary ammonium compound 1.00 - 5.00 % by wt	NE	NE	NE	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.

**Carcinogenicity (NTP, IARC, OSHA):** This product contains carbon black which is classified as a carcinogen by IARC (2B, possibly carcinogenic to humans) and NIOSH.

### 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:** > 200°F (> 93 °C)

**Flash Point Method Used:** Estimated

**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

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

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## 7. HANDLING AND STORAGE

**Signal Word:** Danger!

**Precautions:** Can cause skin and eye irritation. Avoid contact with eyes, skin, and clothing. 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>	Black
<b>Physical State:</b>	Thixotropic Liquid
<b>Solubility in Water:</b>	Insoluble
<b>Vapor Pressure:</b>	Not Determined
<b>Specific Gravity:</b>	1.54 - 1.58 (water = 1)
<b>Boiling Point:</b>	> 300°F (> 149 °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 Determined

## 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.

## 11. TOXICOLOGICAL INFORMATION

**Sensitization:** Possible in susceptible individuals.

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**Carcinogenicity:** This product contains carbon black which is classified as a carcinogen by IARC (2B, possibly carcinogenic to humans) and NIOSH.

**Skin Irritation:** Moderate irritant.

**Eye Irritation:** Irritant.

**Mutagenicity:** Test results for N,N,N',N'-tetraglycidyl bis (para-aminophenyl) methane: ames test: positive; e.coli: negative; mouse lymphoma: positive; cell transformation: negative; nucleus anomaly (in vivo): negative; sister chromatid exchange (in vivo): inconclusive / negative; cytogenetic spermatocytes: negative; cytogenetic spermatogonia: negative. These results for N,N,N',N'-tetraglycidyl bis (para-aminophenyl) methane were filed with the EPA with a statement that the results do not seem to indicate that there is a mutagenic hazard to workers.

## 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

## 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

**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 only chemicals that are currently listed on the Canadian Domestic Substance List.

**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: Oxiranemethanamine, N,N'-(methylenedi-4,1-phenylene)bis[N-(oxiranylmethyl)-

Common Name: N,N,N',N'-Tetraglycidylbis(p-aminophenyl)methane

CAS Number: 28768-32-3

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Aluminum

CAS Number: 7429-90-5

Comment: Environmental Hazardous Substance

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

Chemical Name: Carbon

CAS Number: 7440-44-0

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Aluminum hydroxide

Common Name: Hydrated Alumina

CAS Number: 21645-51-2

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Carbon Black

Common Name: Carbon black

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**Effective Date:** 12/4/09

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CAS Number: 1333-86-4  
Comment: Hazardous Substance**16. OTHER INFORMATION**

<b>MSDS No:</b>	5732
<b>Reason Issued:</b>	update MSDS 12/09
<b>Approved By:</b>	Matt Austin
<b>Title:</b>	EHS Chemist

**Other Information:** D10020030 (D01)

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