

MATERIAL SAFETY DATA SHEET

Anchor Seal, Inc.

EPOXY RESIN

Section 1. Chemical Product and Company Identification	
Product name SY5233FR (NB28) (Part A)	<i>IN CASE OF EMERGENCY:</i> INFOTRAC: 1.800.535.5053 INFORMATION: 1.800.669.5217
Trade Name EPOXY RESIN	
Manufacturer ANCHOR-SEAL, Inc. 54 Great Republic Drive Gloucester, MA 01930	
Date of Preparation: 7/14/09	Replaces: 1-19-04
Prepared By: Peter E. Spinney	

Section 2. Composition, Information on Ingredients			
<i>Component Information</i>		<i>Exposure Limits</i>	
<i>Chemical Name</i>	<i>CAS#</i>	<i>TLV, ACGIH</i>	<i>OSHA PEL, TWA</i>
Epoxy Resin Mixture	Trade Secret		

TLV™-Threshold Limit Value exposure (8 hour, time weighted average unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. PEL - OSHA Permissible Exposure Limit. N/E indicates that no exposure limit has been established.

Section 3. Hazards Identification				
Potential Health Effects		Primary Routes of Exposure:		
X Skin contact	Skin Absorption	X Eye Contact	Inhalation	Ingestion
Routes of Exposure	Symptoms			
Inhalation	Low vapor pressure of the resin makes inhalation unlikely in normal use.			
Skin	Moderate irritant. May cause skin sensitization - itching, redness, rashes, and hives.			
Eyes	May cause moderate eye irritation, redness, pain.			
Ingestion	Harmful if swallowed. May cause nausea and irritation to the gastrointestinal tract.			
Chronic	The effects of long-term, low-level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the minimizing contact and using appropriate personal protective equipment.			
Carcinogenicity				
OSHA	IARC (International Agency for Research on Cancer)		NTP (National Toxicology Program)	
N/L	N/L		N/L	

Section 4. First Aid Measures	
Eyes	Immediately wash the eyes with large amounts of water for at least 15 minutes, occasionally lifting the lower and upper lids. Get medical attention immediately.
Skin	Immediately wash the contaminated skin with soap and water. If this chemical penetrates the clothing, immediately remove the clothing, wash the skin with soap and water, and get medical attention.
Inhalation	Immediately move the exposed person to fresh air. If breathing is difficult, properly trained personnel may administer oxygen. Get medical attention if symptoms persist.

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Ingestion	If large quantities have been swallowed, DO NOT INDUCE VOMITING. If victim is conscious and alert, give 2 - 4 cups of lukewarm water. Get medical attention.
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Section 5. Fire Fighting Measures	
Extinguishing Media: Water X Carbon Dioxide X Dry Chemical X Foam Alcohol Foam	
Flash Point	>200°F SETA Flash LEL: N/D UEL: N/D
Flammability Classification OSHA/NFPA	Flash Pt. N/A Class Liquid
Extinguishing Media	Water, carbon dioxide, dry chemical, foam.
Unusual Fire and Explosions Hazards	Isolate fire area and deny unnecessary entry. Fire fighters should wear positive-pressure self-contained breathing apparatus (SCBA) and protective clothing. Cool containers with WATER SPRAY to avoid explosion. Heat from fire can generate vapor and decomposition products that may cause a health hazard.

Section 6. Accidental Release Measures	
ISOLATE AREA OF THE SPILL! Eliminate all ignition sources. Soak up small spills with inert solids such as vermiculite or other absorbent materials. Shovel into suitable disposal container. Persons not wearing protective equipment should be excluded from the area of spill until cleanup has been completed.	

Section 7. Handling & Storage	
Store material in a clean, cool, ventilated area away from all sources of ignition. Clean up spills at once. Keep container tightly closed when not in use. Always wear protective equipment. Wash hands and other exposed areas thoroughly after handling. Handle mixed resin and hardener in accordance with the potential hazard of the curing agent used. Provide appropriate ventilation/respiratory protection against nuisance dust during sanding/grinding of cured product.	

Section 8. Exposure Controls/Personal Exposure	
Eye Protection	Avoid splashing. Wear chemical-resistant safety goggles or face shield. Contact lenses must not be worn.
Skin Protection	Chemical resistant synthetic rubber (neoprene, nitrile) gloves and other protective clothing is recommended to prevent repeated or prolonged skin contact.
Respiratory Protection	If personal exposure cannot be controlled below applicable limits by area ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in section 2.
Ventilation	General area ventilation is acceptable if the exposure is maintained below applicable exposure limits. (See Section 2) Local exhaust is recommended for confined areas. See 29 CFR 1910.146
Other Precautions	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Section 9. Physical and Chemical Properties			
Percent Volatile Content by Volume (PBV) or Weight (PBW)	N/A	Specific Gravity (gm/cc)	1.5-1.7
VOC Content (less water) Note 1	N/A	Weight per Gallon	12-14 lbs.

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Boiling Point	>200°C	Evaporation Rate	N/A
Vapor Pressure (mm Hg)	<0.1 @ 20°C	Solubility in Water	Negligible
Vapor Density (Air=1)	N/A	Appearance and Odor	Liquid, mild odor

Section 10. Stability and Reactivity	
Stability	Stable x Unstable
Conditions to Avoid	Protect from heat, sparks, flame and possible sources of ignition.
Incompatibility	Avoid contact with strong acids and bases
Hazardous Decomposition Products	Fumes produced when heated to decomposition may contain Carbon dioxide, carbon monoxide, aldehydes and other hazardous gases.
Hazardous Polymerization	Mixing large quantities of resin and hardener will generate significant heat. Uncontrolled cure conditions may char and decompose the resin generating unidentified toxic fumes and vapors.

Section 11. Toxicological Information Acute Toxicity (see Section 3. for Exposure Symptoms)			
Chemical Identity	ORAL LD 50	DERMAL LD 50	Inhalation LC 50
Bisphenol A Diglycidyl ether resin	>2000 mg/kg rat	>2000 mg/kg rabbit	N/A

Section 12. Ecological Information
Material has not been tested for potential adverse effects to the environment.

Section 13 Disposal Considerations
RCRA: This product, if disposed as shipped, is not considered a hazardous waste as specified in 40 CFR 261. Dispose of in accordance with all applicable federal, state and local regulations.

Section 14 Transportation Information	
This product if offered for shipment is Not Regulated by US DOT 49 CFR Parts 171 - 180: Regulation of Hazardous Materials Transportation in Commerce	
Shipping Information	N/A
Classification	N/A
Identification	N/A
Packing Group	N/A
Label	N/A

Section 15. Regulatory Information	
<i>Regulations Governing Product:</i>	
Inventory Status: United States (TSCA) - All ingredients are on the inventory or exempt from listing.	

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SARA TITLE III				
EPCRA 311/312 Tier II Chemical Inventory Reporting:		Immediate (acute)		
	Health	Flammability	Chemical Reactivity	
HMIS Rating	2	1	0	
<i>Regulations Governing Ingredients</i>				
<i>Chemical Name</i>	<i>CAS #/ Category#</i>	<i>CERCLA RQ</i>	<i>EPCRA 313 RQ</i>	<i>EPCRA 302 RQ EHS</i>

Section 16 Other Information

REFERENCES

CRC Press: Handbook of Chemical and Physical Constants by David R. Lide

Merck & Company: The Merck Index

Sigma-Aldrich Company: Aldrich Handbook of Fine Chemicals

Dictionary of Toxicology by Robert Lewis

US Department of Transportation, Research and Special Programs Administration: Hazardous Materials Table

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