

**SHEET****Section 1. Chemical Product and Company Identification**

<b>Product Name:</b> <b>HAR Hardener</b>	<b>Trade Name:</b> Curing Agent
<b>Manufactured By:</b> DUROMAR, Inc. 706 Washington Street Pembroke, MA 02359 Tel 1-781-826-2525 FAX 1-781-826-2150	<b>IN CASE OF EMERGENCY:</b> CHEM-TEL 1-800-255-3924  INTERNATIONAL CHEM-TEL Tel: 001-813-248-0585
<b>Date of Preparation:</b> 01/02/09	<b>Replaces:</b> 01-02-05
<b>Preparers Name</b> R. Giudici	

**Section 2. Composition, Information on Ingredients**

Component Information		Exposure Limits	
Chemical Name	CAS #	OSHA PEL, TWA	ACGIH TLV, TWA
Polyamide Resin	68082-29-1	N/E	N/E
Silicon Dioxide, synthetic PNOR	67762-90-7	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)	TWA 10 mg/m3
Alkyl Quaternary Ammonium Bentonite PNOR	71011-25-1	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)	TWA 10 mg/m3
Crystalline Silica (0.7%)	14808-60-7	TWA 10 mg/m3/(%SiO <sub>2</sub> + 2)	0.1 mg/m3 (respirable dust)
Triethylenetetramine	112-24-3	N/E	N/E

**Section 3. Hazards Identification**

It is a severe eye and skin irritant. Can cause sensitization and dermatitis. Harmful if swallowed.

<b>Potential Health Effects</b>	<b>Primary Routes of Exposure:</b>
<input checked="" type="checkbox"/> Skin contact <input checked="" type="checkbox"/> Skin Absorption <input checked="" type="checkbox"/> Eye Contact <input checked="" type="checkbox"/> Inhalation <input type="checkbox"/> Ingestion	
<b>Symptoms of Acute Overexposure</b>	
<b>Eyes:</b> Contact with undiluted product causes severe irritation, pain and burns that may result in blindness.	
<b>Skin:</b> Contact with undiluted product can cause irritation and redness. Product is absorbed through the skin and may cause nausea, headache and vomiting.	
<b>Ingestion:</b> Swallowing this material can cause gastrointestinal irritation, nausea and vomiting.	
<b>Effects of Chronic Overexposure:</b> Prolonged or repeated exposure can cause adverse respiratory effects such as (cough, tightness of chest, shortness of breath), adverse eye effects (such as conjunctivitis or corneal damage), and adverse skin effects (such as rash, irritation or corrosion). Prolonged or repeated exposure can cause sensitization resulting in itching, swelling, or rashes on subsequent exposures.	
<b>Medical Conditions Aggravated by Exposure:</b> Pre-existing eye and skin conditions (e.g. eczema). Chronic respiratory disease e.g. bronchitis, emphysema.	
<b>Carcinogenicity</b>	Listed Component:   None

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OSHA Listed	International Agency Research Cancer	National Toxicology Program
N/L	N/L	N/L

Grinding, cutting, and drilling of hardened epoxy resin containing silica produces an aerosol mixture of organic particles which have an OSHA PEL of 5 mg/m<sup>3</sup> and reparable crystalline silica dust regulated by OSHA as noted above and is a known human carcinogen.

**Section 4. First Aid Measures****First for 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. Contact lenses should not be worn when working with this chemical.

**First Aid for 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.

**First Aid for Inhalation:**

Immediately move the exposed person to fresh air. If breathing is difficult, properly trained personnel may administer oxygen. If breathing has stopped, perform artificial respiration. Get medical attention immediately.

**First Aid for Ingestion**

If large quantities have been swallowed, DO NOT INDUCE VOMITING. If victim is conscious and alert, give 2 - 4 cups of lukewarm water. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to help prevent aspiration. Get medical attention immediately.

**Section 5. Fire Fighting Measures****Extinguishing Media:**

☐ Water ☒ Carbon Dioxide ☒ Dry Chemical ☒ Foam ☐ Alcohol Foam

**Flash Point**

>200°F/>94°C/ Pensky-Martens Closed Cup LEL: UEL: N/A

**Flammability Classification OSHA/NFPA**

Class N/A Liquid

**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 container with WATER SPRAY to prevent rupture.  
Heat and fire can generate toxic or irritating decomposition products that may cause a health hazard. Sudden reaction and fire may result if product is mixed with an oxidizing agent.

**Section 6. Accidental Release Measures****Small Spills**

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.

**Large Spills**

Eliminate all ignition sources. Stop spill at source. Prevent spill from entering drains, sewers, streams or other bodies of water. Pump or vacuum spilled material and transfer to clean containers for recovery. Apply absorbent to any remaining material. Transfer contaminated absorbent to proper containers for disposal. 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.  
This material adheres readily to human skin (e.g. hands) and may be inadvertently ingested while eating. Wash hands and other exposed areas thoroughly after handling. Launder all clothes after each use.

**Section 8. Exposure Controls/Personal Exposure****Eye Protection**

Avoid splashing. Wear chemical-resistant safety goggles or face shield.

**Skin Protection**

Wear gloves recommended by manufacturers for protection against materials in Section 2. To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

**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)

**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**

<b>Percent Volatile Content by Weight (PBW)</b>	0	<b>Specific Gravity (gm/cc)</b>	1.95
<b>VOC Content gms/liter</b>	0	<b>Weight per Gallon</b>	16.26
<b>Boiling Point (°F)</b>	392°F/>200°C	<b>Evaporation Rate</b> (butyl acetate = 1)	Unknown
<b>Melting Point (°F)</b>	N/A	<b>Solubility in Water</b>	Very Slight
<b>Vapor Pressure (mm Hg)</b>	Unknown	<b>Appearance and Odor</b>	Red Paste Amine Odor
<b>Vapor Density (Air=1)</b>	N/A		

**Section 10. Stability and Reactivity****Stability**

Stable

**Conditions to Avoid**

Protect from heat, sparks, flame and possible sources of ignition.

**Incompatibility**

Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (especially primary and secondary amines)

**Hazardous Decomposition Products**

Carbon dioxide and carbon monoxide. Aldehydes, acids and other organic substances may be formed during combustion or elevated temperature (>500°F).

These gases and other volatiles may be generated under normal processing conditions.

**Conditions For Hazardous Polymerization**

Heat is generated when hardener and resin are combined. Uncontrolled cure conditions may cause the resin to char,

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decompose and generate unidentified toxic fumes.

**Section 11. Toxicological Information** (see Section 3. for Exposure Symptoms)

Acute Toxicity			
Component Tested	Route/Organism	Dose	Effect
Triethylenetetramine	Rat/Oral	LD50 = 2500-4340 mg/kg	Slightly toxic
Triethylenetetramine	Rabbit/Dermal	LC50 = 550-800 mg/kg	Toxic

**Section 12. Ecological Information**

No Data Available

**Section 13 Disposal Considerations**

RCRA: Mix appropriate amounts of Base and Hardener to form an inert mass. Dispose of in accordance with all applicable federal, state and local regulations.

**Section 14 Transportation Information**

This product, if offered for shipment, is regulated by USDOT 49 CFR Parts 171 - 180: Regulation of Hazardous Materials Transportation in Commerce.

<b>Shipping Information</b>	Not Regulated as HAZMAT
<b>Classification</b>	NA
<b>Identification</b>	NA
<b>Packing Group</b>	NA
<b>Label</b>	NA

**Section 15. Regulatory Information****Regulations Governing Product:**

Inventory Status: United States (TSCA) - All ingredients are on the inventory or exempt from listing.

EPCRA 302 EHS Extremely Hazardous Substance Reporting:

SARA TITLE III

EPCRA 311/312 Tier II Chemical Inventory Reporting:

Immediate (acute)

Chemical Name	CAS #/ Category	CERCLA RQ	EPCRA 313

**Section 16 Other Information****HMIS Ratings**

Health : 3

Flammability : 1

Reactivity : 1

**REFERENCES**

CRC Press: Handbook of Chemical and Physical Constants by David R. Lide  
Merck & Company: The Merck Index

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Sigma-Aldrich Company: Aldrich Handbook of Fine Chemicals

Dictionary of Toxicology by Robert Lewis

National Fire Protection Association (NFPA): Fire Protection Guide on Hazardous Materials

US Department of Transportation, Research and Special Programs Administration: Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements

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