

DUROMAR® INC.

SHEET

MATERIAL SAFETY DATA

Section 1. Chemical Product and Company Identification

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

Section 2. Composition, Information on Ingredients

Component Information		Exposure Limits	
Chemical Name	CAS #	OSHA PEL, TWA	ACGIH TLV, TWA
Modified aliphatic amine	Proprietary	N/E	N/E
Isophoronediamine	2855-13-2	N/E	N/E
Benzyl Alcohol	100-51-6	N/E	N/E
Iron Oxide Black PNOR	1317-61-9	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)	TWA 10 mg/m3

Section 3. Hazards Identification

Grinding and drilling of cured product may generate nuisance dust that may contain respirable organic particles which are regulated by OSHA at 5 mg/m³. Inhalation of high concentrations of dusts of this substance may cause eyes and upper respiratory tract irritation.

DANGER! This material as received, is corrosive to eyes and skin. It is a severe eye and skin irritant. Can cause sensitization and dermatitis. Harmful if swallowed

Potential Health Effects

Primary Routes of Exposure:

☒ Skin contact ☒ Skin Absorption ☒ Eye Contact ☒ Inhalation ☐ Ingestion

Symptoms of Acute Overexposure

Eyes:

Contact with undiluted product causes severe irritation, pain and burns that may result in blindness.

Skin:

Contact with undiluted product can cause irritation and redness.

Product is absorbed through the skin and may cause nausea, headache and vomiting.

Inhalation:

Inhalation of vapor or mists may cause irritation to the respiratory tract.

Ingestion:

Swallowing this material can cause gastrointestinal irritation, nausea and vomiting.

Effects of Chronic Overexposure: 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.

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Medical Conditions Aggravated by Exposure: Pre-existing eye and skin conditions (e.g. eczema). Chronic respiratory disease e.g. bronchitis, emphysema.		
Carcinogenicity Listed Component: None		
OSHA Listed	International Agency Research Cancer	National Toxicology Program
N/L	N/L	N/L

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: <input type="checkbox"/> Water <input checked="" type="checkbox"/> Carbon Dioxide <input checked="" type="checkbox"/> Dry Chemical <input checked="" type="checkbox"/> Foam <input type="checkbox"/> 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

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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

Percent Volatile Content by Weight (PBW)	0	Specific Gravity (gm/cc)	0.99
VOC Content gms/liter	0	Weight per Gallon	8.26
Boiling Point (°F)	392°F	Evaporation Rate (butyl acetate = 1)	Unknown
Melting Point (°F)	N/A		
Vapor Pressure (mm Hg)	Unknown	Solubility in Water	Very Slight
Vapor Density (Air=1)	N/A	Appearance and Odor	Black Liquid, Amine Odor

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, decompose and generate unidentified toxic fumes.

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

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Component Tested	Route/Organism	Dose	Effect
Isophorone diamine	Oral/Rat	1,650 mg/kg	Toxic
Isophorone diamine	Eye/Rabbit		Corrosive
Isophorone diamine	Dermal/Rabbit		Skin Irritant

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.

Shipping Information	Isophoronediamine
Classification	8
Identification	UN2289
Packing Group	III
Label	CORROSIVE

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 : 2
Reactivity : 0

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

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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The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information above.