DUROMAR® INC. MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name ***DURO-WEAR BASE***	***Trade Name:*** Epoxy Resin
Manufacturer DUROMAR, Inc. 706 Washington Street Pembroke, MA 02359 Tel 1-781-826-2525 FAX 1-781-826-2150	***IN CASE OF EMERGENCY:*** CHEM-TEL Tel: 800-255-3924 INTERNATIONAL CHEM-TEL Tel: 001-813-248-0585
Date of Preparation: 01/02/09	Replaces: 1-02-06
Preparers Name R. Giudici	

Section 2. Composition, Information on Ingredients

Component Information		*Exposure Limits*	
Chemical Name	*CAS #*	*OSHA PEL, TWA*	*ACGIH TLV, TWA*
Bisphenol A Diglycidyl ether resin	25068-38-6	N/E	N/E
p-tert Butyl Phenyl Glycidyl Ether	3101-60-8	N/E	N/E
Aluminum Oxide PNOR	1344-28-1	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)	TWA 10 mg/m3
Silicon Dioxide, synthetic PNOR	67762-90-7	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)	TWA 10 mg/m3
Ceramic Microspheres PNOR	66402-68-4	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/m^3. Inhalation of high concentrations of dusts of this substance may cause eyes and upper respiratory tract irritation.

WARNING! Eye and Skin Irritant. Potential Skin Sensitizer. Wash hands thoroughly before eating food.

Potential Health Effects Primary Routes of Exposure:

[X] Skin contact [ ] Skin Absorption [X] Eye Contact [ ] Inhalation [ ] Ingestion

Symptoms of Acute Overexposure

Skin: Moderate irritant. May cause skin sensitization (itching, redness, rashes, burning and swelling)

Eyes: Moderate irritant with stinging, burning sensation, tearing and/or redness.

Inhalation: This product has a low vapor pressure which makes inhalation difficult during normal use. If high temperatures are encountered during normal processing, vapors or mists may be generated that cause mild irritation to nose, throat and lungs.

Ingestion: This material has a very low acute oral toxicity. However, if substantial quantities are swallowed, it may cause gastrointestinal distress with nausea, vomiting and diarrhea.

Effects of Chronic Overexposure: Prolonged or repeated contact may cause skin sensitization resulting in itching, swelling, or rashes on subsequent exposures.

Medical Conditions Aggravated by Exposure: Pre-existing eye and skin conditions (e.g. eczema).

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

Flash Point
>390°F/ >200ºC Pensky-Martens Closed Cup LEL: UEL: N/A

Flammability Classification OSHA/NFPA
Class N/A

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 from fire can generate flammable vapor and decomposition products that may cause a health hazard.

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

Percent Volatile Content by Weight (PBW)	0	**Specific Gravity (gm/cc)**	1.61
VOC Content g/L	0	**Weight per Gallon**	13.43
Boiling Point (^{o}F)	425°	**Evaporation Rate** (butyl acetate = 1)	
Melting Point (^{o}F)	N/A		
Vapor Pressure (mm Hg)		**Solubility in Water**	Nil
Vapor Density (Air=1)		**Appearance and Odor**	Bluish Green Loose Paste Epoxy 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			
Component	**Oral LD 50**	**Dermal LD 50**	**Inhalation LC 50**
Bisphenol A Diglycidyl ether resin	>5000 mg/kg	>6000 mg/kg	>3466 mg/m^3

Section 12. Ecological Information

Biodegradability: (modified Sturm method): ~12%

Fish toxicity: Component – Bisphenol A Diglycidyl ether resin
LC50 (96h): 1.5 mg/L species: Rainbow trout
LC50 (96h): 2.4 mg/L species: Zebra fish

Invertebrate toxicity: Component – Bisphenol A Diglycidyl ether resin
EC50 (24h): 3.6 mg/L species: Daphnia

Section 13 Disposal Considerations

RCRA: This product, if disposed as shipped, is not considered a hazardous waste (ignitability) 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 USDOT 49 CFR Parts 171 - 180: Regulation of Hazardous Materials Transportation in Commerce.

Shipping Information	Not Regulated as HAZMAT
Classification	N/A
Identification	N/A
Packing Group	NA/
Label	N/A

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 TPQ:

SARA TITLE III

EPCRA 311/312 Tier II Chemical Inventory Reporting Hazard Category: Immediate (acute)

Chemical Name	*CAS #/ Category*	*CERCLA RQ*	*EPCRA 313RQ*
NONE			

Section 16 Other Information

HMIS Rating

Health	:	2
Flammability	:	1
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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