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M A T E R I A L S A F E T Y D A T A S H E E T

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SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : ENCORE RAIL SYSTEMS 12000 HV EPOXY HARDENER PART B
 IDENTIFICATION NUMBER: 50241-H
 PRODUCT USE/CLASS : Epoxy hardener

SUPPLIER:

Encore Rail Systems, Inc.
 2350 W. Midway Blvd.
 Broomfield, CO 80020
 EMERGENCY: 1-800-424-9300 CHEMTREC
 INFORMATION: 1-866-712-7622

PREPARE DATE: 12/18/09

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SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT%
01	Substituted phenol	TRADE SECRET	1.0-5.0
02	Triethylenetetramine	112-24-3	1.0-5.0
03	Oxidizer	TRADE SECRET	1.0-5.0
04	Diethylenetriamine	111-40-0	1.0-5.0
05	Ethyl alcohol	64-17-5	0.1-1.0
06	Substituted aromatic amine	TRADE SECRET	10.0-30.0

ITEM	EXPOSURE LIMITS					
	ACGIH		OSHA		COMPANY	
	TLV-TWA	TLV-STEL	PEL-TWA	PEL-CEILING	TLV-TWA	SKIN
01	N.E.	N.E.	N.E.	N/E	N.E.	NO
02	N.E.	N.E.	N.E.	N/E	N.E.	NO
03	N.E.	N.E.	N.E.	N.E.	N.E.	NO
04	1 ppm	N.E.	1 ppm	N/E	1ppm NIOSH	YES
05	1000 ppm	N.E.	1000 ppm	N/E	1000 ppm	NO
06	N.E.	N.E.	N.E.	N.E.	N.E.	NO

(See Section 16 for abbreviation legend)

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SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Harmful to aquatic organisms. Harmful if absorbed through skin. Harmful if swallowed. Causes eye burns. Causes skin burns. Vapors irritating to eyes and respiratory tract. May cause allergic skin or respiratory reaction. Oxidizing material.

ACUTE EFFECTS - EYE CONTACT: CORROSIVE to the eyes and may cause severe damage including blindness.

ACUTE EFFECTS - SKIN CONTACT: May be absorbed through the skin in harmful amounts. Strong skin sensitizer. CORROSIVE. Contact may cause chemical burns and blistering.

ACUTE EFFECTS - INHALATION: Harmful if inhaled. Liquid aspirated into lungs may cause serious injury or death. Potential respiratory sensitizer. Vapors may have a strong offensive odor which may cause headaches, nausea and vomiting. Prolonged or very high overexposure may cause burns to the mucous membranes with severe pneumonitis.

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| SECTION 3 - HAZARDS IDENTIFICATION |
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ACUTE EFFECTS - INGESTION: Moderately toxic. This material may be harmful or fatal if swallowed. CORROSIVE and may cause severe and permanent damage to mouth, throat and stomach. May cause sleep disorders, distorted perceptions, convulsions, motor activity changes, ataxia, coma, headache, pulmonary changes, nausea, vomiting. Ingestion may cause fatigue, muscular weakness, labored breathing.

CHRONIC OVEREXPOSURE EFFECTS: *Triethylenetetramine (TETA) caused embryofetal toxicity and fetal malformations when fed to pregnant rats. Similar effects were not seen in studies in which this material was applied to the skin of rabbits, a more relevant route of industrial exposure. These effects are believed to be secondary to copper deficiency, resulting from the chelating activity of the amine. *Preexisting pulmonary and dermatological disorders may be aggravated by exposure to hazardous components. *Studies suggest that chronic overexposure and/or systemic toxicity effects are targeted at the liver and kidneys. *Repeated ingestion of ethanol may cause injury to the liver and central nervous system, and can lead to alcohol dependence (alcoholism). Ingestion during pregnancy may cause birth defects. *Pregnant rats fed high doses of material during pregnancy showed evidence of fetal injury.

OTHER INFORMATION: Not Applicable.

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT, SKIN ABSORPTION, INHALATION, INGESTION, EYE CONTACT,

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| SECTION 4 - FIRST AID MEASURES |
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EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

SKIN CONTACT: Immediately flush skin with plenty of water. Remove clothing. Get medical attention immediately. Wash clothing separately before reuse.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

INGESTION: If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

NOTES TO PHYSICIAN: Treat symptomatically. If swallowed, gastric lavage is indicated.

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| SECTION 5 - FIRE FIGHTING MEASURES |
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FLASH POINT: 50 F LOWER EXPLOSIVE LIMIT: 1.3 %
(PENSKY-MARTENS C.C.) UPPER EXPLOSIVE LIMIT: 19.0 %
AUTOIGNITION TEMPERATURE: No data

EXTINGUISHING MEDIA:ALCOHOL FOAM,CO2, DRY CHEMICAL,FOAM,WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers may rupture or explode (due to pressure build-up) when exposed to extreme heat. Irritating and/or toxic gases or fumes may be generated by thermal decomposition or combustion.

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| SECTION 5 - FIRE FIGHTING MEASURES |
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SPECIAL FIREFIGHTING PROCEDURES: Use NIOSH-approved self-contained breathing apparatus and full protective clothing. Use water to cool exposed containers. Water stream directed into fire may cause frothing with subsequent spread of flame.

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| SECTION 6 - ACCIDENTAL RELEASE MEASURES |
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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Reclaim clean material. Dike or contain spill away from drains, soil, and waterways if safe to do so. Wear appropriate protective equipment during cleanup. Absorb with inert material, such as clay. Sweep or shovel into loosely-covered waste container and remove to appropriate waste area. Dispose of in accordance with federal, state, and local regulations. Harmful to aquatic organisms. Prevent entry into drains and/or waterways.

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| SECTION 7 - HANDLING AND STORAGE |
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HANDLING: Remove contaminated clothing and wash before reuse. Use only in a well ventilated area. Avoid breathing dust, vapor, mist or gas. Avoid contact with skin and eyes. FOR INDUSTRIAL USE ONLY. Empty containers may retain product residue and can be dangerous. Observe all labeled precautions even after container is emptied. Keep away from heat, sparks, open flames, and pilot lights.

STORAGE: Keep container closed when not in use. Store away from direct heat, sunlight, and open flames. Ground opened container when not in use.

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| SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION |
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ENGINEERING CONTROLS: Local exhaust as needed to control vapor or dust levels to below lowest component TLV.

RESPIRATORY PROTECTION: None normally required under general ventilation. If TLV/PEL is exceeded, if use is performed in a poorly-ventilated space, or if inhalation effects occur, use NIOSH-approved vapor cartridge respirator in accordance with applicable health and safety regulations and manufacturer's recommendations.

SKIN PROTECTION: Clean clothing to cover skin. Butyl rubber gloves. Neoprene gloves. Nitrile gloves. Teflon gloves. Viton gloves. Supported PVA gloves. Synthetic apron. Aniline and aniline-based derivative gloves.

EYE PROTECTION: Chemical splash goggles. Face shield.

OTHER PROTECTIVE EQUIPMENT: Accessible eye wash and safety shower.

HYGIENIC PRACTICES: Follow good general industrial safety practices during use.

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| SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES |
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BOILING RANGE	: 172 - 404 F	VAPOR DENSITY	: Is heavier than air
ODOR	: Acrid ammoniacal	ODOR THRESHOLD	: No data
APPEARANCE	: Black	EVAPORATION RATE:	Is slower than Butyl Acetate
SOLUBILITY IN H2O	: Slight	SPECIFIC GRAVITY:	1.228
FREEZE POINT	: No data	pH @ 100.0 %	: N/A
VAPOR PRESSURE	: No data low	VISCOSITY	: Very high
PHYSICAL STATE	: Liquid		
COEFFICIENT OF WATER/OIL DISTRIBUTION:	No data		

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 | SECTION 10 - STABILITY AND REACTIVITY |
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CONDITIONS TO AVOID: Prolonged exposure to heat. Exposure to moisture.

INCOMPATIBILITY: Strong Lewis or mineral acids. Chlorinated rubber. Metals. Surface-active compounds. Reaction with epoxy resins and isocyanates in large amounts or under uncontrolled conditions releases considerable heat and may release acrid fumes. Aldehydes, ketones, acrylates, and organic halides. Reaction with some nitrates or nitrites can cause the formation of cancer-causing nitrosoamines. Epoxides.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon. Oxides of nitrogen, ammonia. Various hydrocarbons. Irritating aldehydes and ketones.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

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 | SECTION 11 - TOXICOLOGICAL PROPERTIES |
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COMPONENT TOXICOLOGICAL INFORMATION:

----- CHEMICAL NAME -----	----- LD50 -----	----- LC50 -----
Substituted phenol	derm(rat)1280mg/kg	Not Applicable
Triethylenetetramine	derm(rbt)805mg/kg	No information
Oxidizer	Oral-rate=3.9g/kg	no data
Diethylenetriamine	skin(rbt)1090mg/kg	No information
Ethyl alcohol	oral(rat) 7060mg	No data
Substituted aromatic amine	No information	No information

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 | SECTION 12 - ECOLOGICAL INFORMATION |
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ECOLOGICAL TEST DATA: Not Applicable.

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 | SECTION 13 - DISPOSAL CONSIDERATIONS |
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DISPOSAL METHOD: Review all current federal, state, and local regulations regarding health and disposal for appropriate disposal procedures. For small amounts, mix resin and hardener according to product directions and allow to harden. When cured, product is non-hazardous, and may be placed in industrial or municipal landfill if local regulations permit. Contact manufacturer for information on disposal. Material "as sold" is not regulated as a hazardous waste under federal RCRA regulations. DO NOT landfill free liquid. Fuels blending or incineration of free liquid recommended if permitted.

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 | SECTION 14 - TRANSPORTATION INFORMATION |
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DOT PROPER SHIPPING NAME: Polyamines, Liquid, corrosive, nos
 DOT TECHNICAL NAME: Diethylenetriamine, Triethylenetetramine
 DOT HAZARD CLASS: 8 HAZARD SUBCLASS: NONE
 DOT UN/NA NUMBER: UN2735 PACKING GROUP: III RESP. GUIDE PAGE: 153

INTERNATIONAL SHIPPING NAME: Polyamines, liquid, corrosive, nos
 (Diethylenetriamine, Triethylenetetramine)

INTERNATIONAL ID NUMBER: UN2735

IMDG CLASS (1',2"): 8, 3

IMDG PAGE NUMBER: III

IMDG EMS: N/D

IATA CLASS (1',2"): 8, 3

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|                SECTION 15 - REGULATORY INFORMATION
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OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

CERCLA - SARA HAZARD CATEGORY:

This product has been reviewed, and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD CHRONIC HEALTH HAZARD FIRE HAZARD REACTION HAZARD

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 and 40 CFR part 372:

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----- CHEMICAL NAME ----- CAS NUMBER    WT/WT % IS LESS THAN

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No SARA Section 313 components exist in this product.

TOXIC SUBSTANCES CONTROL ACT:

The chemical substances in this product are on the TSCA Section 8 Inventory.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

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----- CHEMICAL NAME ----- CAS NUMBER

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No components found.

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for use of the 16 headings.

CANADIAN WHMIS CLASS: D1B, E

COMPONENT RCRA CLASSIFICATIONS: Ignitable.

COMPONENT RCRA CODES: D001

CERCLA RQ VALUE (MINIMUM): 100

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|                SECTION 16 - OTHER INFORMATION
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HMIS RATINGS - HEALTH: 3 FLAMMABILITY: 2 REACTIVITY: 0

PREVIOUS MSDS REVISION DATE: none

REASON FOR REVISION: new product

VOLATILE ORGANIC COMPOUNDS (VOCS): 4 grams/ltr

LEGEND: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

ABBREVIATIONS: ACGIH = American Conference of Governmental Industrial Hygienists; OSHA = US Occupational Health and Safety Administration; UK = United Kingdom; TLV-TWA = Threshold Limit Value-Time Weighted Average (8 hrs); STEL = Short-Term Exposure Limit (15 min); C = Ceiling Value; PEL = Permissible Exposure Limit

DISCLAIMER: To the best of our knowledge, the information contained in this MSDS is accurate or is obtained from sources believed to be accurate. However, no liability, expressed or implied, is assumed for the accuracy or completeness of the information contained herein. Buyer assumes liability in its use of the material.

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<END OF MSDS>