

8040-00-777-0631

MATERIAL SAFETY DATA SHEET

TELEPHONE 603-474-5541
EMERGENCY 1-800-424-9300
(FOR EMERGENCY USE ONLY)

2/09/98

DISTRIBUTOR PROGRAMS
THE DEXTER CORPORATION
ONE DEXTER DRIVE
SEASIDE BROOK, NH 03874

8040-00-777-0631

EUROPEAN SALES
Dexter Magnetic Materials Division
Stag Industrial Estate
Atlantic Street
Altrincham, Cheshire
England
WA 14 5DW8
Phone: 0161-929-0424
Fax: 0161-929-0425

SOUTH EAST ASIA SALES
Dexter Asia Pacific LTD
6, Tuas Avenue 8
Singapore
639221

Phone: 065-862-0261
Fax: 065-861-8850

PRODUCT CODE: AA0001-

HMIS 111 REVISION
DESCRIPTION: EPK 1C PART A NBR: 07 02/09/98

* N.A. = NOT APPLICABLE

N.E. = NOT ESTABLISHED

SECTION I - NOMENCLATURE

CHEMICAL NAME AND SYNONYMS
EPOXY RESIN

TRADE NAME AND SYNONYMS
EPK 1C Resin

CHEMICAL FAMILY
EPOXY

FORMULA
PROPRIETARY

SECTION II - HAZARDOUS INGREDIENTS & SECTION 313 SUPPLIER NOTIFICATION

If a hazardous ingredient is identified as being a toxic chemical via hazard code "A", that chemical is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40CFR372.

HAZARD CODES(HAZD):
C=Carcinogen (OSHA, NTP, IARC)
H=Hazardous(OSHA)
P=California Prop 65(carcinogen)
A=Superfund amendments and reauthorization act.(SARA)

HAZARDOUS MATERIAL	% by Wt.	TLV MEAS.	PEL MEAS.	CAS NBR HAZ
01 Crystalline silica	.581	0.1mg/m3	10mg/m3 % SiO2+2	14808-60-9 H.C.
02 Epoxy Resin	30-60	N.E.	N.E.	25068-38-6 NC

SECTION III - PHYSICAL DATA

BOILING PT (DEG. F)	>500	SPECIFIC GRAVITY	1.57
VAPOR PRESSURE (MM HG)	Nil	PCT VOLATILE BY VOL	0
PCT VOLATILE BY WEIGHT	<10 gm/l	EVAPORATION RATE	N.A.
SOLUBILITY IN WATER	Insoluble	VAPOR DENSITY (AIR=1)	N.A.

PAGE 1

SECTION III - PHYSICAL DATA

APPEARANCE AND ODOR -
white, high viscosity liquid; mild odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (DEG. F)	480	METHOD USED	PMCC
LOWER EXPLO. LEVEL	UNKNOWN	UPPER EXPLO. LEVEL	UNKNOWN

EXTINGUISHING MEDIA -
Water fog, foam, dry chemical or Carbon Dioxide.

SPECIAL FIRE FIGHTING PROCEDURES -
Material will not burn unless preheated. Do not enter confined fire space without full bunker gear (helmet with face shield, Bunker coats, gloves, and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus. Cool fire exposed containers with water.

UNUSUAL FIRE AND EXPLOSION HAZARDS -
None

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE -

ITEM G1
0.3 mg/m3 Total Dust, 0.1 mg/m3 Respirable Dust

EFFECTS OF OVEREXPOSURE -
The International Agency for Research on Cancer (IARC) has classified crystalline silica as a probable carcinogen. The National Toxicology Program (NTP) has included crystalline silica on the NTP list of carcinogens. However, once it is part of a cured adhesive, the crystalline silica is fully encapsulated. Therefore no exposure should occur unless the cured adhesive is dry sanded or otherwise cut without proper local exhaust and/or the use of a NIOSH/MSHA approved respirator for dust. Eye and skin irritant.

EMERGENCY AND FIRST AID PROCEDURES -
EYES: Wash eyes with large amounts of water. Obtain medical attention if irritation persists.

ITEM G2
EFFECTS OF OVEREXPOSURE - EYE CONTACT: Based on similar product testing, product may be moderately irritating to the eyes. Contact with product at elevated temperatures can result in thermal burns.
SKIN CONTACT: Based on similar product testing, product may be moderately irritating to the skin. Based on similar product testing, product may cause skin sensitization. Contact with product at elevated temperatures can result in thermal burns.
INHALATION: Because of its low volatility, this product is not likely to be an inhalation hazard.
INGESTION: Based on similar product testing product is presumed to have a low order of acute oral toxicity.
SIGNS AND SYMPTOMS: Irritation as noted. Skin sensitization (allergy) may be evidenced by rashes, especially hives.
AGGRAVATED MEDICAL SYMPTOMS: Preexisting skin and eye disorders may be aggravated by exposure to this product. Preexisting skin or lung allergies may increase the chance of developing increased allergy symptoms from exposure to this product.
EMERGENCY AND FIRST AID PROCEDURES - EYE CONTACT: Flush with water for 15 minutes while holding eyelids open. Get medical attention. If contact with hot product occurs, immediately flush with cool water for 15 minutes. Get medical attention. SKIN CONTACT: Remove contaminated clothing/shoes and wipe off excess from skin. Flush with water. Follow by washing with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse. If contact with hot product occurs, immediately flush with cool water for 15 minutes. Carefully remove clothing; if clothing is stuck to a burn area, do not pull it off, but cut around it. Cover burn area with a clean material. Get medical attention. INHALATION: Remove victim to fresh air and provide oxygen

if breathing is difficult. Get medical attention. INGESTION: Do not induce vomiting. In general, no treatment is necessary unless large quantities of product are ingested. However, get medical advice.*
 NOTE TO PHYSICIAN: *In general, emesis induction is unnecessary in high viscosity, low volatility products, e.g., neat epoxy resins.
 WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

SECTION VI - REACTIVITY DATA

STABILITY STABLE

CONDITIONS TO AVOID-
 Can react vigorously with strong oxidizing agents and strong Lewis or mineral acids. In reactions with many curing agents, considerable heat is released.

INCOMPATIBILITY (MATERIALS TO AVOID)-
 See conditions to avoid.

HAZARDOUS DECOMPOSITION PRODUCTS-
 Carbon monoxide, aldehydes and acids may be formed during combustion. Reaction with some curing agents may produce considerable heat.

HAZARDOUS POLYMERIZATION-
 WILL NOT OCCUR

CONDITIONS TO AVOID-
 Strong acids, amines, mercaptans, bases

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED-
 Scrape up and transfer to metal container. Wipe up remaining residue with solvents, observing solvent flammability cautions, or use detergent

WASTE DISPOSAL METHOD-
 Cleanup and disposal should be in accordance with Federal, State and local environmental control regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE)-
 Not ordinarily required. If resin is warmed or heated, vapors or mists may be produced. In such cases, use NIOSH approved respirator for organic vapors.

VENTILATION-
 Local exhaust recommended, mechanical acceptable

PROTECTIVE GLOVES-
 Impervious plastic or rubber

EYE PROTECTION-
 Safety glasses or goggles

OTHER PROTECTIVE EQUIPMENT-
 Safety shower and eye wash

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN STORAGE AND HANDLING-
 Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures. Handle in accordance with the hazard potential of curing agent(s) used.

OTHER PRECAUTIONS-
 May cause irritation. Avoid eye and skin contact.

 *TSCA: All the components contained in this product comply with *
 * applicable requirements pertaining to the US EPA TSCA inventory *
 PAGE 3

SECTION IX - SPECIAL PRECAUTIONS

* under 40CFR Part 710 and 720. *

* The information and recommendations contained herein are based upon data *

* believed to be correct. However, since much of the information has been *

* received from sources outside our company, we cannot guarantee its *

* accuracy or completeness. Health and safety precautions contained *

* within this data sheet may not be adequate for all individuals and/or *

* situations. It is the user's obligation to evaluate and use this data *

* in order to comply with all applicable laws and regulations. *

* Additionally, no guarantee or warranty of any kind, expressed or implied *

* is made with respect to the information contained herein. *

NAME: Ken DeCosta

MSDS DATE 2/09/98 PAGE 4 OF 4

SECTION X-TRANSPORTATION INFORMATION

3. DOT SHIPPING INFORMATION:
PROPER SHIPPING NAME:

ADHESIVES, NOI NON-REGULATEI

PORTABLE QUANTITY:
NOT APPLICABLE

POSTAL SERVICE:
THIS MATERIAL IS ALLOWED TO BE SENT THROUGH THE POSTAL SERVICE.

IA SHIPPING INFORMATION:
PROPER SHIPPING NAME:

ADHESIVES, NOI NON-REGULATEI

MATERIAL SAFETY DATA SHEET

POLYMER SYSTEMS
THE DEXTER CORPORATION
ONE DEXTER DRIVE
SEABROOK, NH 03874

TELEPHONE 603-474-5541
EMERGENCY 1-800-424-9300
(FOR EMERGENCY USE ONLY)

10/06/98

8040-00-092-28

more work

EUROPEAN SALES
Dexter Polymer Systems
Stag Industrial Estate
Atlantic Street
Altrincham, Cheshire
England
WA14 5DW8
Phone: 0161-929-0424
Fax: 0161-929-0425

SOUTH EAST ASIA SALES
Dexter Asia Pacific LTD
6, Tuas Avenue 8
Singapore
639221

Phone: 065-862-0261
Fax: 065-861-8850

PRODUCT CODE: AA0608- DESCRIPTION: EPK 608 PART A REVISION NBR: 10 10/05/98

* N.A. = NOT APPLICABLE

N.E. = NOT ESTABLISHED

SECTION I - NOMENCLATURE

CHEMICAL NAME AND SYNONYMS
Mixture

TRADE NAME AND SYNONYMS
EPK 608 Part A

CHEMICAL FAMILY
Mixture

FORMULA
Proprietary

SECTION II - HAZARDOUS INGREDIENTS & SECTION 313 SUPPLIER NOTIFICATION

If a hazardous ingredient is identified as being a toxic chemical via hazard code "A", that chemical is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40CFR372.

HAZARD CODES (HAZD):
C=Carcinogen (OSHA, NTP, IARC)
H=Hazardous (OSHA)
P=California Prop 65 (carcinogen)
A=Superfund Amendments and Reauthorization Act (SARA)

HAZARDOUS MATERIAL	% by Wt.	TLV MEAS.	PEL MEAS.	CAS NBR	HAZD
Epoxy Resin	90-100	N.E.	N.E.	25068-38-6	H
Silica	1-5	10mg/m3	20mppcf	112945-52-5	H

SECTION III - PHYSICAL DATA

BOILING PT (DEG. F)	>500	SPECIFIC GRAVITY	1.17
VAPOR PRESSURE (MM HG)	0.03mm	PCT VOLATILE BY VOL	N.A.
PCT VOLATILE BY WEIGHT	N.A.	EVAPORATION RATE	N.A.
SOLUBILITY IN WATER	Negligible	VAPOR DENSITY (AIR=1)	>1
APPEARANCE AND ODOR- White paste, slight odor			

SECTION III - PHYSICAL DATA

AA0608 CONTINUED...

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (DEG. F)	480	METHOD USED	P.M.C.C.
LOWER EXPLO. LEVEL	N.A.	UPPER EXPLO. LEVEL	N.A.

EXTINGUISHING MEDIA-
Dry chemical or Halon fire extinguisher, or water spray, foam or fog

SPECIAL FIRE FIGHTING PROCEDURES-
Use self-contained breathing apparatus when fighting fires in confined areas

UNUSUAL FIRE AND EXPLOSION HAZARDS-
Dense smoke and toxic gasses may be liberated

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE-
SEE SECTION II

EFFECTS OF OVEREXPOSURE-
Can cause eye irritation. Prolonged or repeated contact can cause skin irritation. Can be irritating to the respiratory system. Can cause gastrointestinal irritation.

EMERGENCY AND FIRST AID PROCEDURES-

EYES: Flush with water for 15 minutes while holding eyelids open. Seek medical attention

SKIN: Flush with affected area with water for 15 minutes. Remove contaminated clothing. Wash skin thoroughly with soap and water.

INHALATION: Remove to fresh air and provide oxygen if breathing if difficult.

INGESTION: If conscious, give large quantities of water. Seek medical attention.

SECTION VI - REACTIVITY DATA

STABILITY STABLE

CONDITIONS TO AVOID-
N.A.

INCOMPATIBILITY (MATERIALS TO AVOID)-
Strong oxidizing agents, strong Lewis or mineral acids

HAZARDOUS DECOMPOSITION PRODUCTS-

CO, NOX, aldehydes, acids and undetermined organics, Reaction with some curing agents may produce considerable heat. Run-away cure reactions may char and decompose the resin system, generating unidentified fumes and vapors which may be toxic.

HAZARDOUS POLYMERIZATION-
May occur

CONDITIONS TO AVOID-
Avoid mixing resin (Part A) and curing agent (Part B) in batches greater than 1 pound unless you plan to use immediately. DO NOT heat mixed adhesive above 125 deg. F unless curing surfaces to be bonded. Failure to observe these precautions may result in excessive heat build-up causing an exotherm. The exotherm has the potential for release of toxic gasses.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED-
Wear protective clothing, gloves and safety glasses. Scrape up or shovel into DOT approved waste containers.

WASTE DISPOSAL METHOD-

This material, as a waste, is not considered a RCRA hazardous waste, however, incineration in an EPA-approved waste incinerator is a preferred

disposal practice. Chemical additions, processing, or otherwise altering this material may make the waste management information herein incomplete, inaccurate, or otherwise inappropriate. Additionally, state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding proper disposal of this material.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE)-
Not ordinarily required

VENTILATION-
Local exhaust recommended

PROTECTIVE GLOVES-
Impervious plastic or rubber

EYE PROTECTION-
Safety glasses or goggles

OTHER PROTECTIVE EQUIPMENT-
Avoid contact with eyes. Wear safety glasses or goggles as appropriate
Avoid prolonged or repeated contact with skin. Wear chemical-resistant gloves and other clothing as required to minimize contact.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN STORAGE AND HANDLING-
Store in a cool, dry place. Keep away from open flames and high temperatures. Containers, even those that have been emptied, can contain hazardous product residues. Handle in accordance with the hazard potential of curing agent used.

OTHER PRECAUTIONS-
Heating the resin above 300 deg.F in the presence of air may cause slow oxidative decomposition above 500 deg.F, polymerization may occur. Some curing agents, e.g., aliphatic polyamides can produce exothermic reactions which in large masses can cause runaway polymerization and charring of the reactants. Fumes and vapors from these thermal and chemical decompositions vary widely in composition and toxicity. DO NOT breathe fumes. Use a NIOSH-approved respirator as required to prevent overexposure.

REGULATORY INFORMATION:
DEPARTMENT of TRANSPORTATION (DOT):

PROPER SHIPPING NAME: (172.101 (c)): Adhesive Glues, NOI
TECHNICAL NAME(s) (172.203 (k)): None
HAZARD CLASS (172.101 (d)): None
UN/NA NUMBER (172.101 (e)): None
LABEL REQUIRED: None
HAZARDOUS SUBSTANCE RO (NAME): None
INHALATION HAZARD (173.3a (b)): None

*TSCA: All the components contained in this product comply with
* applicable requirements pertaining to the US EPA TSCA inventory *
* under 40CFR Part 710 and 720. *

The information and recommendations contained herein are based upon data
believed to be correct. However, since much of the information has been
*received from sources outside our company, we cannot guarantee its *
*accuracy or completeness. Health and safety precautions contained *
*within this data sheet may not be adequate for all individuals and/or *
*situations. It is the user's obligation to evaluate and use this data *
*in order to comply with all applicable laws and regulations. *
Additionally, no guarantee or warranty of any kind, expressed or implied
*is made with respect to the information contained herein. *
