

MATERIAL SAFETY DATA SHEET

MSDS Name: EPOCAP 3648 PART A
MSDS Number: 03648-1
Version Number: H
MSDS Date: JUN-21-2005
Page Number: 1 of 6

SECTION I - PRODUCT AND COMPANY INFORMATION

Product Name: EPOCAP 3648 PART A
Hazard Rating: Health: 2 Fire: 1 Reactivity: 0 PPI:

Company Identification: ROYAL ADHESIVES & SEALANTS LLC
600 CORTLANDT STREET
BELLEVILLE NJ 07109-3384

Contact: BRUCE WEINMAN
Telephone/Fax: (973) 751-3000 (973) 751-8407
Emergency Phone (24 Hour): ENVIRONMENTAL SPECIALIST
(973) 751-3000
Chemtrec (24 Hour): (800) 424-9300
Preparer: B. WEINMAN
ENVIRONMENTAL SPECIALIST

Product Class: EPOXY
Trade Name: EPOCAP 3648 PART A
Product Code: 03648-1

SECTION II - INGREDIENT AND HAZARD INFORMATION

Hazardous Ingredients CAS Number

EPOXY RESIN 25068-38-6

*** ALL Ingredients in this product are listed in the T.S.C.A. Inventory

SECTION III - HAZARDS IDENTIFICATION

EYE CONTACT:

PRODUCT IS MODERATELY IRRITATING TO THE EYES.

SKIN CONTACT:

PRODUCT IS MODERATELY IRRITATING TO THE SKIN. MAY CAUSE SKIN SENSITIZATION. SKIN SENSITIZATION MAY BE EVIDENCED BY RASHES, ESPECIALLY HIVES.

INHALATION:

BECAUSE OF ITS LOW VOLATILITY THIS PRODUCT IS NOT LIKELY TO BE AN INHALATION HAZARD.

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INGESTION:

THIS PRODUCT IS CONSIDERED TO HAVE A LOW ORDER OF ACUTE ORAL TOXICITY.

AGGRAVATED MEDICAL CONDITIONS:

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.

SECTION IV - FIRST AID MEASURES

EYE CONTACT:

FLUSH EYES WITH PLENTY OF WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET IMMEDIATE MEDICAL ATTENTION.

SKIN CONTACT:

REMOVE CONTAMINATED CLOTHING AND WIPE EXCESS FROM SKIN. FLUSH SKIN WITH WATER. FOLLOW BY WASHING WITH SOAP AND WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. LAUNDRY CONTAMINATED CLOTHING. DESTROY LEATHER ARTICLES INCLUDING SHOES.

INHALATION:

REMOVE PERSON TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET IMMEDIATE MEDICAL ATTENTION.

INGESTION:

DO NOT INDUCE VOMITING. GET MEDICAL ADVICE.

SECTION V - FIRE-FIGHTING MEASURES

Flammability Class	IIIB
Flash Range:	Not Available
	Pensky-Martens Closed Cup ASTM D 93 >400
Explosive Range:	Not Available

FIRE-FIGHTING MEASURES:

USE WATER FOG, DRY CHEMICAL, FOAM, CARBON DIOXIDE. WATER OR FOAM MAY CAUSE FROTHING. USE WATER TO COOL FIRE-EXPOSED CONTAINERS. IF A LEAK OR SPILL HAS NOT IGNITED, USE WATER SPRAY TO DISPERSE THE VAPORS AND PROVIDE PROTECTION TO THE PEOPLE ATTEMPTING TO STOP THE LEAK. USE FULL TURNOUT GEAR INCLUDING SELF-CONTAINED BREATHING APPARATUS (SCBA).

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FIRE EXPOSED CONTAINERS MAY BUILD PRESSURE AND BURST.

SECTION VI - ACCIDENTAL RELEASE MEASURES

SPILLS:

SHUT OFF ALL IGNITION SOURCES AND DIKE SPILL TO CONTAIN AND PREVENT ENTRY INTO SEWERS OR WATER SOURCES. ABSORB SPILLED MATERIAL AND PLACE IN CLOSED CONTAINER FOR DISPOSAL. CONTROLLED INCINERATION. HANDLE IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL ENVIRONMENTAL PROTECTION AGENCY REGULATIONS.

SECTION VII - HANDLING AND STORAGE

STORAGE CONDITIONS:

STORE IN A COOL, DRY PLACE. KEEP AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

	ACGIH TLV	ACGIH TLV-C	ACGIH STEL	OSHA STEL	OSHA PEL
EPOXY RESIN	N/est	N/est	N/est	N/est	N/est

PERSONAL PROTECTIVE EQUIPMENT:

IN THE ABSENCE OF PROPER ENVIRONMENTAL CONTROL OR VENTILATION, WEAR A RESPIRATOR APPROVED BY NIOSH/MSHA WHENEVER EXPOSED TO FUMES OR VAPORS. COMPLY WITH OSHA 1910.134 (CFR). SELF-CONTAINED BREATHING APPARATUS IN HIGH CONCENTRATIONS. LOCAL EXHAUST IS RECOMMENDED. USE CHEMICAL RESISTANT PROTECTIVE GLOVES, CHEMICAL SPLASH GOGGLES. CHEMICAL RESISTANT PROTECTIVE CLOTHING TO MINIMIZE EXPOSURE; CHEMICAL SPLASH APRON, FULL FACE SHIELD. EYE WASH STATION AND SAFETY SHOWER SHOULD BE AVAILABLE FOR EMERGENCY USE.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

Form: LIQUID
Appearance/Color: CLEAR
Boiling Range: Not Available
Vapor Pressure (mmHg): Not Available

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Melting Point: Not Applicable
Evaporation Rate: Unavailable
% Volatile Not Available
Specific Gravity: 1.17

SECTION X - STABILITY AND REACTIVITY

Stability: This product is stable
Hazardous Polymerization: Hazardous polymerization will not occur

REACTIVITY:

INCOMPATIBILITY:

OXIDIZING AGENTS, STRONG MINERAL ACIDS, STRONG LEWIS ACIDS, BASES, MERCAPTANS, AMINES.

CONDITIONS TO AVOID:

HIGH TEMPERATURES.

HAZARDOUS DECOMPOSITION PRODUCTS:

CARBON MONOXIDE, CARBON DIOXIDE, ALDEHYDES, ACIDS.

SECTION XI - TOXICOLOGICAL INFORMATION

Lethal Dose Information (ppm)	Oral	Skin	Inhale	LC50
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TOXICOLOGICAL INFORMATION:

CARCINOGENICITY (EPOXY RESIN COMPONENT):

RECENT 2-YEAR BIOASSAYS IN RATS AND MICE EXPOSED BY THE DERMAL ROUTE TO THE DIGLYCIDYL ETHER OF BISPHENOL A (BADGE) YIELDED NO EVIDENCE OF CARCINOGENICITY TO THE SKIN OR ANY OTHER ORGANS. THIS STUDY CLARIFIES PRIOR EQUIVOCAL RESULTS FROM A 2-YEAR MOUSE SKIN PAINTING STUDY, WHICH WERE SUGGESTIVE, BUT NOT CONCLUSIVE, FOR WEAK CARCINOGENICITY ACTIVITY. Note: BADGE IS A COMPONENT IN ALL BPA/ECH BASED LIQUID EPOXY RESINS.

THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) CONCLUDED THAT DIGLYCIDYL ETHER OF BIS-PHENOL A IS NOT CLASSIFIABLE AS A CARCINOGEN (IARC group 3), THAT IS HUMAN AND ANIMAL EVIDENCE OF CARCINOGENICITY IS INADEQUATE.

MUTAGENICITY:

RESINS OF THIS TYPE, LIQUID RESINS BASED ON DIGLYCIDYL ETHER OF BIS-PHENOL A, HAVE PROVED TO BE INACTIVE WHEN TESTED BY IN VIVO

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MUTAGENICITY ASSAYS. THESE RESINS HAVE SHOWN ACTIVITY IN IN VITRO MICROBIAL MUTAGENICITY SCREENING AND HAVE PRODUCED CHROMOSOMAL ABERRATIONS IN CULTURED RAT LIVER CELLS. THE SIGNIFICANCE OF THESE TESTS TO MAN IS UNKNOWN.

SECTION XII - ECOLOGICAL INFORMATION

NO INFORMATION IS AVAILABLE.

SECTION XIII - DISPOSAL CONSIDERATIONS

RCRA CONSIDERATIONS:

THIS PRODUCT IF DISPOSED OF IN THE PURCHASED FORM IS NOT CONSIDERED RCRA HAZARDOUS.

SECTION XIV - TRANSPORT INFORMATION

UN Number	
UN Pack Group	
UN Class	
ICAO/IATA Class	NOT REGULATED
IMDG Class	NOT REGULATED
Shipping Name	PLASTIC LIQUID, NOS
ADR/RID Class	NOT REGULATED
DOT Hazard Class	
Technical Name	

THIS PRODUCT IS NOT CONSIDERED DOT HAZARDOUS WHEN TRANSPORTED BY ANY MODE IN THE UNITED STATES. IF THE PRODUCT IS TRANSPORTED IN EUROPE IT IS CONSIDERED TO BE A CLASS 9 HAZARDOUS MATERIAL.

SECTION XV - REGULATORY INFORMATION

TSCA STATUS:

ALL INGREDIENTS CONTAINED IN THIS PRODUCT ARE ON THE TSCA INVENTORY.

INVENTORY STATUS:

ALL THE COMPONENT(S) OF THIS PRODUCT HAVE BEEN FOUND ON THE FOLLOWING INVENTORIES:

UNITED STATES
EUROPE

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CANADA
AUSTRALIA
JAPAN
KOREA
CHINA
PHILIPPINES

SECTION XVI - OTHER INFORMATION

DISCLAIMER:

ALTHOUGH THE INFORMATION AND RECOMMENDATIONS SET FORTH HEREIN (HEREINAFTER "INFORMATION") ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE CORRECT AS OF THE DATE HEREOF, ROYAL ADHESIVES & SEALANTS LLC MAKES NO REPRESENTATIONS AS TO THE COMPLETENESS OR ACCURACY THEREOF. INFORMATION IS SUPPLIED UPON THE CONDITION THAT THE PERSONS RECEIVING SAME WILL MAKE THEIR OWN DETERMINATION AS TO ITS SUITABILITY FOR THEIR PURPOSES PRIOR TO USE. IN NO EVENT WILL ROYAL ADHESIVES & SEALANTS LLC BE RESPONSIBLE FOR DAMAGES OF ANY NATURE WHATSOEVER RESULTING FROM THE USE OF OR RELIANCE UPON INFORMATION. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OF ANY NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

MATERIAL SAFETY DATA SHEET

MSDS Name: EPOWELD 3655 PART B
MSDS Number: 03655-2
Version Number: H
MSDS Date: JUL-12-2005
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SECTION I - PRODUCT AND COMPANY INFORMATION

Product Name: EPOWELD 3655 PART B
Hazard Rating: Health: 3 Fire: 1 Reactivity: 0 PPI:

Company Identification: ROYAL ADHESIVES & SEALANTS LLC
600 CORTLANDT STREET
BELLEVILLE NJ 07109-3384

Contact: BRUCE WEINMAN
Telephone/Fax: (973) 751-3000 (973) 751-8407
Emergency Phone (24 Hour): ENVIRONMENTAL SPECIALIST
(973) 751-3000
Chemtrec (24 Hour): (800) 424-9300
Preparer: B. WEINMAN
ENVIRONMENTAL SPECIALIST

Product Class: POLYAMIDE
Trade Name: EPOWELD 3655 PART B
Product Code: 03655-2

SECTION II - INGREDIENT AND HAZARD INFORMATION

Hazardous Ingredients: POLYAMIDE CAS Number: TRADE SECRET

*** ALL Ingredients in this product are listed in the T.S.C.A. Inventory

SECTION III - HAZARDS IDENTIFICATION

EYE CONTACT:

PRODUCT MAY BE EXTREMELY IRRITATING TO THE EYES AND MAY CAUSE SERIOUS DAMAGE INCLUDING BLINDNESS. VAPORS MAY BE IRRITATING.

SKIN CONTACT:

PRODUCT MAY BE IRRITATING TO THE SKIN. PRODUCT MAY CAUSE SKIN SENSITIZATION.

INHALATION:

SEVERE RESPIRATORY TRACT IRRITANT. MAY CAUSE RESPIRATORY EFFECTS SUCH AS COUGH, TIGHTNESS OF CHEST OR SHORTNESS OF BREATH.

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INGESTION:

MAY CAUSE IRRITATION OF MOUTH AND THROAT AND THE GASTROINTESTINAL TRACT.

OTHER HEALTH HAZARD INFORMATION:

PREEXISTING EYE, SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

SECTION IV - FIRST AID MEASURES

EYE CONTACT:

FLUSH THOROUGHLY WITH WATER FOR AT LEAST 15 MINUTES WHILE LIFTING UPPER AND LOWER EYE LIDS. GET IMMEDIATE MEDICAL ATTENTION.

SKIN CONTACT:

WIPE EXCESS FROM SKIN AND FLUSH WITH WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION. LAUNDRER CLOTHING, DISCARD LEATHER CLOTHING.

INHALATION:

REMOVE PERSON TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION.

INGESTION:

DO NOT INDUCE VOMITING. ADMINISTER 3-4 GLASSES OF MILK OR WATER. GET IMMEDIATE MEDICAL ATTENTION. NOTHING BY MOUTH IF VICTIM IS DROWSY, CONVULSING, OR UNCONSCIOUS.

SECTION V - FIRE-FIGHTING MEASURES

Flammability Class	IIIB
Flash Range:	Not Available
	Pensky-Martens Closed Cup ASTM D 93 >300F
Explosive Range:	Not Available

FIRE-FIGHTING MEASURES:

USE WATER FOG, DRY CHEMICAL, FOAM, CARBON DIOXIDE. WATER OR FOAM MAY CAUSE FROTHING. USE WATER TO COOL FIRE-EXPOSED CONTAINERS. IF A LEAK OR SPILL HAS NOT IGNITED, USE WATER SPRAY TO DISPERSE THE VAPORS AND PROVIDE PROTECTION TO THE PEOPLE ATTEMPTING TO STOP THE LEAK. USE FULL TURNOUT GEAR INCLUDING SELF-CONTAINED BREATHING APPARATUS (SCBA). FIRE EXPOSED CONTAINERS MAY BUILD PRESSURE AND BURST.

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SECTION VI - ACCIDENTAL RELEASE MEASURES

SPILLS:

SHUT OFF ALL IGNITION SOURCES AND DIKE SPILL TO CONTAIN AND PREVENT ENTRY INTO SEWERS OR WATER SOURCES. ABSORB SPILLED MATERIAL AND PLACE IN CLOSED CONTAINER FOR DISPOSAL. CONTROLLED INCINERATION. HANDLE IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL ENVIRONMENTAL PROTECTION AGENCY REGULATIONS.

SECTION VII - HANDLING AND STORAGE

STORAGE CONDITIONS:

STORE IN A COOL, DRY PLACE. KEEP AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits	ACGIH TLV	ACGIH TLV-C	ACGIH STEL	OSHA STEL	OSHA PEL
POLYAMIDE	N/est	N/est	N/est	N/est	N/est

PERSONAL PROTECTIVE EQUIPMENT:

IN THE ABSENCE OF PROPER ENVIRONMENTAL CONTROL OR VENTILATION, WEAR A RESPIRATOR APPROVED BY NIOSH/MSHA WHENEVER EXPOSED TO FUMES OR VAPORS. COMPLY WITH OSHA 1910.134 (CFR). SELF-CONTAINED BREATHING APPARATUS IN HIGH CONCENTRATIONS. LOCAL EXHAUST IS RECOMMENDED. USE CHEMICAL RESISTANT PROTECTIVE GLOVES, CHEMICAL SPLASH GOGGLES. CHEMICAL RESISTANT PROTECTIVE CLOTHING TO MINIMIZE EXPOSURE; CHEMICAL SPLASH APRON, FULL FACE SHIELD. EYE WASH STATION AND SAFETY SHOWER SHOULD BE AVAILABLE FOR EMERGENCY USE.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

Form: LIQUID
Appearance/Color: AMBER
Odor: AMINE
Boiling Range: Not Available
Vapor Pressure (mmHg): Not Available

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Melting Point: Not Applicable
Evaporation Rate: Unavailable
% Volatile: Not Available
Specific Gravity: 0.97

SECTION X - STABILITY AND REACTIVITY

Stability: This product is stable
Hazardous Polymerization: Hazardous polymerization will not occur

REACTIVITY:

INCOMPATIBILITY:

OXIDIZING AGENTS, CLEANING SOLUTIONS SUCH AS CHROMERGE/AQUA REGIA.
CONDITIONS TO AVOID:
HIGH TEMPERATURES.

HAZARDOUS DECOMPOSITION PRODUCTS:

CARBON MONOXIDE, CARBON DIOXIDE, NITROGEN OXIDES, AMMONIA.

SECTION XI - TOXICOLOGICAL INFORMATION

Lethal Dose Information (ppm)	Oral	Skin	Inhale	LC50
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SECTION XII - ECOLOGICAL INFORMATION

NO INFORMATION IS AVAILABLE.

SECTION XIII - DISPOSAL CONSIDERATIONS

RCRA CONSIDERATIONS:

PLACE IN AN APPROPRIATE DISPOSAL FACILITY IN COMPLIANCE WITH FEDERAL AND LOCAL REGULATIONS.

SECTION XIV - TRANSPORT INFORMATION

UN Number
UN Pack Group
UN Class
ICAO/IATA Class: NOT REGULATED
IMDG Class: NOT REGULATED
Shipping Name: PLASTIC LIQUID, NOS

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ADR/RID Class: NOT REGULATED
DOT Hazard Class:
Technical Name:

SECTION XV - REGULATORY INFORMATION

TSCA STATUS:

ALL INGREDIENTS CONTAINED IN THIS PRODUCT ARE ON THE TSCA INVENTORY.

INVENTORY STATUS:

THE COMPONENT(S) OF THIS PRODUCT HAVE BEEN VERIFIED TO BE LISTED ON THE FOLLOWING INVENTORIES:

UNITED STATES
CANADA (DSL)
EUROPE (EU)
AUSTRALIA
JAPAN
CHINA
KOREA
PHILIPPINES

SECTION XVI - OTHER INFORMATION

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