

MATERIAL SAFETY DATA SHEET

PRODUCT: 1324 SEA GOIN EPOXY BASE

DATE PREPARED: 02/03

MANUFACTURER: PERMALITE PLASTICS
1131 WEST BAKER ST.
COSTA MESA, CA 92626
(714) 429-0800

EMERGENCY TELEPHONE:
(800) 633-0302

PART A

HAZARDOUS INGREDIENTS INFORMATION

HAZARDOUS COMPONENTS	OSHA PEL	ACGIH TLV	%
BISPHENOL-A BASED EPOXY RESIN CAS # 25036-25-3	NONE	NONE	35-40 RESIN
ALKYL (C8-C10)GLYCIDYL ETHER CAS# 68609-96-1	NONE	NONE	1-5

HEALTH 2 REACTIVITY 0 FLAMMABILITY 1

PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: N/A SPECIFIC GRAVITY: 1.7
VAPOR PRESSURE(mm=Hg): < 1.0 MMHG MELTING POINT: N/A
VAPOR DENSITY (AIR=1): > AIR EVAPORATION RATE: < BUTYL A
(butyl acetate=1)
SOLUBILITY IN WATER : PRACTICALLY INSOLUBLE
APPEARANCE AND ORDER: WHITE PAST WITH A FAINT EPOXY ODOR

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED) >212 F PMCC FLAMMABLE LIMITS
LEL: N/A UEL: N/A

EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL, FOAM ALCOHOL-RESISTANT FOAM.

SPECIAL FIRE FIGHTING PROCEDURES: REMOVE ALL IGNITION SOURCES. WEAR SELF CONTAINED BREATHING APPARATUS AND COMPLETE PERSONAL PROTECTIVE EQUIPMENT WHEN ENTERING CONFINED AREAS WHERE POTENTIAL FOR EXPOSURE TO VAPORS OR PRODUCTS OF COMBUSTION EXISTS.

UNUSUAL FIRE AND EXPLOSION HAZARDS: CLOSED CONTAINERS MAY RUPTURE WHEN EXPOSED TO EXTREME HEAT. (DUE TO PRESSURE BUILDUP)

REACTIVITY DATA

STABILITY: STABLE

CONDITIONS TO AVOID: EXCESSIVE HEAT

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

MATERIALS TO AVOID: CONTAMINATION WITH STRONG ACIDS, BASES, AMINES, AND MERCAPTANS CAN CAUSE

POLYMERIZATION.

PART A

HAZARDOUS DECOMPOSITION PRODUCTS: FUMES PRODUCED WHEN HEATED TO DECOMPOSITION MAY INCLUDE: CARBON MONOXIDE, PHENOLICS HYDROGEN CHLORIDE AND WATER.

HEALTH HAZARD DATA

INGESTION: SINGLE DOSE ORAL TOXICITY IS LOW. LARGER AMOUNTS MAY RESULT IN INJURY.

INHALATION: HEATING CAN GENERATE VAPORS THAT COULD CAUSE HEADACHES, NAUSEA, DIZZINESS, AND RESPIRATORY IRRITATION IF INHALED.

SKIN ABSORPTION: MAY CAUSE MODERATE SKIN INJURY (REDDENING & SWELLING) SENSITIZER-MAY CAUSE ALLERGIC SKIN REACTION WHICH CAN BE SEVERE IN SOME INDIVIDUALS. REPEATED EXPOSURE MAY CAUSE SKIN BURNS.

CHRONIC: EPICHLOROHYDRIN HAS BEEN REPORTED TO PRODUCE CANCER IN LAB ANIMALS AND EPIDEMIOLOGICAL STUDIES PRESENT "WEAK" EVIDENCE OF CANCER RISKS TO HUMANS. EPICHLOROHYDRIN IS LISTED IN THE IARC MONOGRAPHS AND BY NTP.

EMERGENCY FIRST AID PROCEDURES

EYE CONTACT: FLUSH WITH PLENTY OF WATER FOR ATLEAST 15 MINUTES AND SEEK MEDICAL ATTENTION.

SKIN CONTACT: REMOVE CONTAMINATED CLOTHING AND WASH CONTACT AREA WITH SOAP AND WATER FOR ATLEAST 15 MINUTES.

INGESTION: IF APPRECIABLE QUANTITIES ARE SWALLOWED INDUCE VOMITING AND SEEK MEDICAL ATTENTION.

INHALATION: IN CASE OF EXPOSURE TO HIGH LEVELS OF VAPOR MIST, REMOVE PERSON TO FRESH AIR. IF BREATHING HAS STOPPED, ADMINISTER ARTIFICIAL RESPIRATION AND SEEK MEDICAL ATTENTION.

SPILL OR LEAK PROCEDURES

IF MATERIAL IS SPILLED;DIKE SPILL. ABSORB WITH INERT MATERIAL AND COLLECT FOR DISPOSAL. FLUSH WITH WATER. PREVENT WASHINGS FROM ENTERING WATERWAYS.

WASTE DISPOSAL METHOD: SEND TO A LICENSED RECYCLER, RECLAIMER, OR INCINERATOR FOR EVALUATION AND DISPOSAL. ALWAYS BE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: WEAR A PROPERLY FITTED NIOSH/MSHA APPROVED RESPIRATOR WHENEVER EXPOSURE TO VAPOR/MIST IS LIKELY UNLESS LEVELS ARE BELOW APPLICABLE LIMITS.

VENTILATION: LOCAL EXHAUST - RECOMMENDED WHEN APPROPRIATE TO CONTROL EMPLOYEE EXPOSURE. MECHANICAL - NOT RECOMMENDED AS THE SOLE MEANS OF CONTROLLING EMPLOYEE EXPOSURE.

PROTECTIVE GLOVES: IMPERVIOUS NEOPRENE GLOVES.

EYE PROTECTION: CHEMICAL SPLASH GOGGLES.

OTHER PROTECTION: FOR OPERATION WHERE CONTACT CAN OCCUR, COVERALLS, APRON, AND RUBBER FOOT COVERINGS ARE RECOMMENDED. A SAFETY SHOWER AND EYE WASH SHOULD BE AVAILABLE.

SPECIAL PRECAUTIONS

1. PREVENT ALL SKIN AND EYE CONTACT.
2. AVOID BREATHING VAPORS.
3. KEEP CONTAINERS CLOSED WHEN NOT IN USE, RE-SEAL PARTLY USED CONTAINERS.
4. ENSURE THAT ALL CONTAINERS ARE PROPERLY LABELED.
5. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES.
6. REMOVE ALL CONTAMINATED CLOTHING, SHOES, BELTS, AND OTHER LEATHER GOODS IMMEDIATELY. WASH CONTAMINATED CLOTHING THOROUGHLY BEFORE REUSE.
7. SOLVENTS SHOULD NOT BE USED TO CLEAN SKIN BECAUSE OF INCREASED PENETRATION POTENTIAL.
8. OBSERVE CONDITIONS OF GOOD INDUSTRIAL HYGIENE AND SAFE WORKING PRACTICES.

THE DATA CONTAINED HEREIN IS BASED ON INFORMATION THAT PERMALITE BELIEVES TO BE RELIABLE, BUT NO EXPRESSED OR IMPLIED WARRANTY IS MADE WITH REGARD TO THE ACCURACY OF SUCH DATA OR ITS SUITABILITY FOR A GIVEN SITUATION.

THIS PRODUCT DOES NOT CONTAIN TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND OF 40CFR372 HMIS.

PROPOSITION 65 INFORMATION

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS THAT HAVE BEEN DESIGNATED AS CANCER AND/OR REPRODUCTIVE HAZARDS UNDER CALIFORNIA PROPOSITION 65.

NONE

TRANSPORT INFORMATION

DEPARTMENT OF TRANSPORTATION: NOT REGULATED

Part B

MATERIAL SAFETY DATA SHEET

PRODUCT: 1324 SEA GOIN EPOXY CATALYST

DATE PREPARED: 02/01

MANUFACTURER: PERMALITE PLASTICS
1131 W. BAKER STREET
COSTA MESA, CA 92626
(714) 429-0800

EMERGENCY TELEPHONE:
(800) 633-0302

HAZARDOUS INGREDIENTS INFORMATION

HAZARDOUS COMPONENTS	OSHA PEL	ACGIH TLV	%
DIMER/TOFA,REACTION PRODUCTS WITH TETA CAS # 68082-29-1	NONE	NONE	<10
TOFA,REACTION PRODUCTS WITH TEPA CAS # 68953-36-6	NONE	NONE	>10
EPOXIDIZED OLEIC ACID,REACTION PRODUCTS WITH TEPA CAS # 68298-14-6	NONE	NONE	<10
TRIETHYLENETETRAMINE CAS # 112-24-3	NONE	NONE	< 1
TETRAETHYLENEPENTAMINE CAS # 112-57-2	NONE	NONE	< 1

HEALTH 3 REACTIVITY 0 FLAMMABILITY 1

PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: N/A SPECIFIC GRAVITY: 1.6
VAPOR PRESSURE(mm=Hg): <1 @ 25C MMHG MELTING POINT: N/A
VAPOR DENSITY (AIR=1): NO DATA EVAPORATION RATE: NO DATA
(butyl acetate=1)
SOLUBILITY IN WATER : SLIGHT
APPEARANCE AND ORDER: GREEN PASTE, SLIGHT AMMONIACAL ODOR.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED) FLAMMABLE LIMITS
> 286 F, PENSKY MARTIN,CLOSED CUP LEL: N/A UEL: N/A

EXTINGUISHING MEDIA: CLASS B FIRE. USE WATER SPRAY, CARBON DIOXIDE, DRY CHEMICAL, ALCOHOL FOAM.

SPECIAL FIRE FIGHTING PROCEDURES: REMOVE ALL IGNITION SOURCES. WEAR SELF CONTAINED BREATHING APPARATUS AND COMPLETE PERSONAL PROTECTIVE EQUIPMENT WHEN ENTERING CONFINED AREAS WHERE POTENTIAL FOR EXPOSURE TO VAPORS OR PRODUCTS OF COMBUSTION EXISTS.

PART B

UNUSUAL FIRE AND EXPLOSION HAZARDS: MAY GENERATE TOXIC OR IRRITATING COMBUSTION PRODUCTS. SUDDEN REACTION AND FIRE MAY RESULT IF PRODUCT IS MIXED WITH AN OXIDIZING AGENT.

REACTIVITY DATA

STABILITY: STABLE

CONDITIONS TO AVOID: NOT APPLICABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

MATERIALS TO AVOID: OXIDIZING AGENTS, CLEANING SOLUTIONS e.g. CHROMERGE & AQUA REGIA. A REACTION ACCOMPANIED BY LARGE HEAT RELEASE OCCURS WHEN PRODUCT IS MIXED WITH ACIDS.

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE & CARBON DIOXIDE IN A FIRE. AMMONIA WHEN HEATED. NITROGEN OXIDES IN A FIRE. NITROGEN OXIDE CAN REACT WITH WATER VAPORS TO FORM NITRIC ACID. COMBUSTION UNDER OXYGEN STARVED CONDITIONS CAN PRODUCE TOXIC PRODUCTS INCLUDING NITRILES, AMIDES. IRRITATING AND TOXIC FUMES AT ELEVATED TEMPERATURES.

HEALTH HAZARD DATA

SKIN AND EYE CONTACT: MODERATE SKIN AND EYE IRRITANT. CORROSIVE LIQUID MAY CAUSE SKIN SENSITIZATION.

INHALATION: CAUSES IRRITATION OF THE RESPIRATORY TRACT AND MAY CAUSE ADVERSE SYSTEMIC EFFECTS.

SKIN & EYE CONTACT: UNDILUTED PRODUCT QUICKLY CAUSES SEVERE IRRITATION AND PAIN AND MAY CAUSE BURNS, NECROSIS AND PERMANENT INJURY. BURNS OF THE EYE MAY CAUSE BLINDNESS.

CHRONIC: REPEATED OR PROLONGED EXPOSURE MAY RESULT IN ADVERSE SKIN EFFECTS e.g. DEFATTING, RASH, IRRITATION, OR CORROSION; ADVERSE EYE EFFECTS e.g. CONJUNCTIVITIS OR CORNEAL DAMAGE; REPEATED OR PROLONGED CONTACT WITH SKIN MAY CAUSE ALLERGIC REACTION/SENSITIZATION.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: ASTHMA, CHRONIC RESPIRATORY DISEASE, EYE DISEASE, SKIN DISORDERS, AND ALLERGIES.

EMERGENCY FIRST AID PROCEDURES

EYE CONTACT: FLUSH WITH PLENTY OF WATER FOR ATLEAST 15 MINUTES AND SEEK MEDICAL ATTENTION.

SKIN CONTACT: REMOVE PRODUCT AND IMMEDIATELY . FLUSH WITH WATER FOR ATLEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND CONTACT A PHYSICIAN.

INGESTION: ADMINISTER LARGE QUANTITIES OF WATER. DO NOT INDUCE VOMITING. OBTAIN MEDICAL CARE IMMEDIATELY.

INHALATION: REMOVE PERSON TO FRESH AIR. IF BREATHING HAS STOPPED OR IS LABORED GIVE ASSISTED RESPIRATION. SUPPLEMENTAL OXYGEN MAY BE INDICATED. PREVENT ASPIRATION OF VOMIT. CALL PHYSICIAN.

SPILL OR LEAK PROCEDURES

IF MATERIAL IS SPILLED; VENTILATE SPILL AREA. CONSTRUCT A DIKE. ELIMINATE IGNITION SOURCES. USE SELF CONTAINED BREATHING APPARATUS AND BUTYL RUBBER PROTECTIVE CLOTHING. COVER MINOR SPILLS WITH SODIUM BISULFATE TO NEUTRALIZE AND REDUCE VAPORS. PLACE IN METAL CONTAINERS FOR DISPOSAL. PREVENT PRODUCT FROM ENTERING STREAMS OR DRINKING WATER SUPPLIES. EVACUATE ALL PERSONNEL UPWIND FROM SPILL.

WASTE DISPOSAL METHOD: COMPLY WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS. INCINERATION IS ACCEPTABLE AND THE PREFERRED METHOD.

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: IN POORLY VENTILATED AREAS, A CARTRIDGE MASK (NIOSH) APPROVED FOR ORGANIC VAPORS IS RECOMMENDED OR WHEN VAPOR CONCENTRATION EXCEEDS 20 PPM FOR MORE THAN 15 MINUTES.

VENTILATION: ADEQUATE LOCAL GENERAL AND LOCAL EXHAUST. IN CASE OF INSUFFICIENT VENTILATION, WEAR SUITABLE RESPIRATORY EQUIPMENT.

PROTECTIVE GLOVES: NITRILE RUBBER GLOVES.

EYE PROTECTION: CHEMICAL SPLASH-PROOF GOGGLES. CONTACT LENSES SHOULD NOT BE WORN.

OTHER PROTECTION: FOR OPERATION WHERE CONTACT CAN OCCUR, USE A FACE SHIELD, IMPERVIOUS BODY COVERING, AND BOOTS. A SAFETY SHOWER AND EYE WASH SHOULD BE AVAILABLE.

SPECIAL PRECAUTIONS

1. PREVENT ALL SKIN AND EYE CONTACT.
2. AVOID BREATHING VAPORS.
3. KEEP CONTAINERS CLOSED WHEN NOT IN USE, RE-SEAL PARTLY USED CONTAINERS.
4. ENSURE THAT ALL CONTAINERS ARE PROPERLY LABELED.
5. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES.
6. REMOVE ALL CONTAMINATED CLOTHING, SHOES, BELTS, AND OTHER LEATHER GOODS IMMEDIATELY. WASH CONTAMINATED CLOTHING THOROUGHLY BEFORE REUSE.
7. SOLVENTS SHOULD NOT BE USED TO CLEAN SKIN BECAUSE OF INCREASED PENETRATION POTENTIAL.
8. OBSERVE CONDITIONS OF GOOD INDUSTRIAL HYGIENE AND SAFE WORKING PRACTICES.
9. KEEP IN COOL DRY VENTILATED STORAGE. STORE IN STEEL CONTAINERS.
10. KEEP AWAY FROM OXIDIZERS, HEAT OR FLAMES.

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PROPOSITION 65 INFORMATION

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NONE

PART B

TRANSPORT INFORMATION

DOT NON BULD SHIPPING NAME:

Tetraethylenepentamine solution; 8;
Un1760; PG III

IMO SHIPPING DATA:

Tetraethylenepentamine solution; 8;
UN 1760 ; III ; IMDG PAGE 8234 ; F. P. 141.1
C ; Placarded Corrosive; HazMat
STCC= 4935216 ; Ems No : 8-05; MFAG No: 320

ICAO/IATA SHIPPING DATA:

Tetraethylenepentamine solution; 8;
UN1760 ; III ; F. P. 141.1 C ; Shipment per
49 CFR 171.11