

24 HOUR EMERGENCY NUMBER  
CHEMTREC 1 800 424-9300

ACUTE HEALTH 2	FIRE 1	REACTIVITY 0	HAZARD RATING- LEAST-1 HIGH-3	MODERATE-2 EXTREME-4
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PRODUCT NAME: EPOXY 330 A  
Date Printed: JANUARY 2002

CHEMICAL NAME: EPOXY RESIN  
CHEMICAL FAMILY: EPICHLOROHYDRIN-BISPHENOL A RESIN

1. INGREDIENTS: (% W/W, UNLESS OTHERWISE NOTED)

REACTION PRODUCTS OF EPICHLOROHYDRIN & BISPHENOL A  
CAS# 025085-99-8 100%

THIS DOCUMENT IS PREPARED PURSUANT TO THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200). IN ADDITION, OTHER SUBSTANCES NOT "HAZARDOUS" PER THIS OSHA STANDARD MAY BE LISTED. WHERE PROPRIETARY INGREDIENT SHOWS, THE IDENTITY MAY BE MADE AVAILABLE AS PROVIDED IN THIS STANDARD.

2. PHYSICAL DATA:

BOILING POINT: NOT APPLICABLE  
VAP. PRESS: NOT APPLICABLE  
VAP. DENSITY: NOT APPLICABLE  
SOL IN WATER: NONE  
SP. GRAVITY: 1.16  
APPEARANCE: WATER-WHITE TO YELLOW LIQUID TO SEMI-SOLID.  
ODOR: FAINT EPOXY ODOR.

3. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT: 485F, 252C  
METHOD USED: ASTM D93, PMCC

FLAMMABLE LIMITS

LFL: NOT APPLICABLE

UFL: NOT APPLICABLE

EXTINGUISHING MEDIA: FOAM, CO2, DRY CHEMICAL

FIRE & EXPLOSION HAZARDS: NONE KNOWN.

FIRE-FIGHTING EQUIPMENT: WEAR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS.

(Continued on Page #2)

PRODUCT NAME: EPOXY 330 A

4. REACTIVITY DATA:

STABILITY: ( CONDITIONS TO AVOID ) EXCESS HEATING OVER LONG PERIODS OF TIME DEGRADES THE RESIN.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) BASE, ACID, AMINES AND OXIDISING MATERIALS.

HAZARDOUS DECOMPOSITION PRODUCTS: THE BY-PRODUCTS EXPECTED IN INCOMPLETE PYROLYSIS OR COMBUSTION OF EPOXY RESINS ARE MAINLY PHENOLICS, CARBON MONOXIDE AND WATER. THE THERMAL DECOMPOSITION PRODUCTS OF EPOXY RESINS THEREFORE SHOULD BE TREATED AS POTENTIALLY HAZARDOUS SUBSTANCES, AND APPROPRIATE PRECAUTIONS SHOULD BE TAKEN.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR BY ITSELF, BUT MASSES OF MORE THAN ONE POUND OF PRODUCT PLUS AN ALIPHATIC AMINE WILL CAUSE IRREVERSIBLE POLYMERIZATION WITH CONSIDERABLE HEAT BUILDUP.

5. ENVIRONMENTAL AND DISPOSAL INFORMATION:

ACTION TO TAKE FOR SPILLS/LEAKS: SOAK UP IN ABSORBENT MATERIAL SUCH AS SAND AND COLLECT IN SUITABLE CONTAINERS. RESIDUAL RESIN MAY BE REMOVED USING STEAM OR HOT SOAPY WATER. SOLVENTS ARE NOT RECOMMENDED FOR CLEANUP UNLESS THE RECOMMENDED EXPOSURE GUIDELINES AND SAFE HANDLING PRACTICES FOR THE SPECIFIC SOLVENT ARE FOLLOWED. CONSULT APPROPRIATE SOLVENT MSDS FOR HANDLING INFORMATION AND EXPOSURE GUIDELINES. KEEP SPARK PRODUCING EQUIPMENT AWAY. FOR LARGE SPILLS EVACUATE UPWIND OF SPILLS AND CONTAIN WITH DIKE.

DISPOSAL METHOD: BURN IN ADEQUATE INCINERATOR OR BURY IN AN APPROVED LANDFILL; IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

6. HEALTH HAZARD DATA:

EYE: MAY CAUSE SLIGHT TRANSIENT ( TEMPORARY ) EYE IRRITATION. CORNEAL INJURY IS UNLIKELY.

SKIN CONTACT: REPEATED EXPOSURE MAY CAUSE SKIN IRRITATION. HAS CAUSED ALLERGIC SKIN REACTION IN HUMANS.

SKIN ABSORPTION: A SINGLE PROLONGED EXPOSURE IS NOT LIKELY TO RESULT IN THE MATERIAL BEING ABSORBED THROUGH SKIN IN HARMFUL AMOUNTS. THE LD50 FOR SKIN ABSORPTION IN RABBITS IS 20,000 MG/KG.

( Continued on Page #3 )

PRODUCT NAME: EPOXY 330 A

6. HEALTH HAZARD DATA: (Continued )

INGESTION : SINGLE DOSE ORAL TOXICITY IS LOW. THE ORAL LD50 FOR RATS IS >5000 MG/KG. NO HAZARDS ANTICIPATED FROM SWALLOWING SMALL AMOUNTS INCIDENTAL TO NORMAL HANDLING OPERATIONS.

INHALATION: VAPORS ARE UNLIKELY DUE TO PHYSICAL PROPERTIES.

SYSTEMIC ( OTHER TARGET ORGAN) EFFECTS:  
EXCEPT FOR SKIN SENSITIZATION, REPEATED EXPOSURES TO LOW MOLECULAR WEIGHT DIGLYCIDYL ETHER OF BISPHENOL A ARE NOT ANTICIPATED TO CAUSE ANY SIGNIFICANT ADVERSE EFFECTS.

CANCER INFORMATION: A POORLY CHARACTERIZED SAMPLE OF LOW MOLECULAR WEIGHT DIGLYCIDYL ETHER OF BISPHENOL A HAS BEEN REPORTED TO PRODUCE SKIN CANCER IN A HIGHLY SENSITIVE STRAIN OF MICE. HOWEVER, HIGH LEVELS OF IMPURITIES ( INCLUDING A KNOWN ANIMAL SKIN CARCINOGEN) COMPROMISE THE VALIDITY OF THE FINDINGS. DIGLYCIDYL ETHER OF BISPHENOL A THAT IS REPRESENTATIVE OF CURRENT MANUFACTURING PROCESSES IS NOT BELIEVED TO BE A CANCER HAZARD TO HUMANS.

TERATOLOGY ( BIRTH DEFECTS):  
DID NOT CAUSE BIRTH DEFECTS OR OTHER ADVERSE EFFECTS ON THE FETUS WHEN PREGNANT RABBITS WERE EXPOSED BY SKIN CONTACT, THE MOST LIKELY ROUTE OF EXPOSURE.

MUTAGENICITY (EFFECTS ON GENETIC MATERIAL):  
RESULTS OF MUTAGENICITY TEST IN ANIMALS HAVE BEEN NEGATIVE. HAS BEEN SHOWN TO BE NEGATIVE IN SOME IN VITRO ('TEST TUBE') MUTAGENICITY TESTS AND POSITIVE IN OTHERS.

7. FIRST AID:

EYES: IRRIGATE IMMEDIATELY WITH WATER FOR AT LEAST 5 MINUTES.

SKIN: WASH OFF IN FLOWING WATER OR SHOWER.

INGESTION: NO ADVERSE EFFECTS ANTICIPATED BY THIS ROUTE OF EXPOSURE INCIDENTAL TO PROPER INDUSTRIAL HANDLING.

( Continued on Page #4 )

PRODUCT NAME: EPOXY 330 A

7. FIRST AID: (Continued )

INHALATION: REMOVE TO FRESH AIR IF EFFECTS OCCUR. CONSULT A PHYSICIAN.  
NOTE TO PHYSICIAN: NO SPECIFIC ANTIDOTE. SUPPORTIVE CARE. TREATMENT BASED  
ON JUDGEMENT OF THE PHYSICIAN IN RESPONSE TO REACTIONS OF THE PATIENT.

8. HANDLING PRECAUTIONS:

EXPOSURE GUIDELINES: NONE ESTABLISHED.

VENTILATION: GOOD GENERAL VENTILATION SHOULD BE SUFFICIENT FOR MOST  
CONDITIONS.

RESPIRATORY PROTECTION: NO RESPIRATORY PROTECTION SHOULD BE NEEDED.

SKIN PROTECTION: FOR BRIEF CONTACT, NO PRECAUTIONS OTHER THAN CLEAN BODY-  
COVERING SHOULD BE NEEDED. USE IMPERVIOUS GLOVES WHEN PROLONGED OR  
FREQUENTLY REPEATED CONTACT COULD OCCUR.

EYE PROTECTION: USE SAFETY GLASSES. WHERE CONTACT WITH THIS MATERIAL IS  
LIKELY, CHEMICAL GOGGLES ARE RECOMMENDED BECAUSE EYE CONTACT MAY CAUSE  
DISCOMFORT EVEN THOUGH IT IS UNLIKELY TO CAUSE INJURY.

9. ADDITIONAL INFORMATION:

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:  
PRACTICE GOOD CAUTION AND PERSONAL CLEANLINESS TO AVOID SKIN AND EYE  
CONTACT. AVOID BREATHING VAPORS OF HEATED MATERIAL.

REGULATORY INFORMATION: (NOT MEANT TO BE ALL-INCLUSIVE--SELECTED REGULATIONS  
REPRESENTED).

NOTICE: THE INFORMATION HEREIN IS PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE  
AS OF THE EFFECTIVE DATE SHOWN ABOVE. HOWEVER, NO WARRANTY, EXPRESS OR IMPLIED, IS GIVEN.  
REGULATORY REQUIREMENTS ARE SUBJECT TO CHANGE AND MAY DIFFER FROM ONE LOCATION TO  
ANOTHER; IT IS THE BUYER'S RESPONSIBILITY TO ENSURE THAT ITS ACTIVITIES COMPLY WITH FEDERAL,  
STATE OR PROVINCIAL, AND LOCAL LAWS. THE FOLLOWING SPECIFIC INFORMATION IS MADE FOR THE  
PURPOSE OF COMPLYING WITH NUMEROUS FEDERAL, STATE OR PROVINCIAL, AND LOCAL LAWS AND  
REGULATIONS. SEE MSD SHEET FOR HEALTH AND SAFETY INFORMATION.

SARA HAZARD CATEGORY: THIS PRODUCT HAS BEEN REVIEWED ACCORDING TO THE EPA "HAZARD  
CATEGORIES" PROMULGATED UNDER SECTION 311 & 312 OF THE SUPERFUND AMENDMENT &  
REAUTHORIZATION ACT OF 1986 (SARA TITLE 111) & IS CONSIDERED, UNDER APPLICABLE DEFINITIONS, TO  
MEET THE FOLLOWING CATEGORIES:

AN IMMEDIATE HEALTH HAZARD.

CANADIAN REGULATIONS

The Workplace Hazardous Material Information System Classification for this product is: D2B

OTHER REGULATORY INFORMATION: NOT REGULATED.

THE INFORMATION HEREIN IS GIVEN IN GOOD FAITH, BUT NO WARRANTY, EXPRESS OR IMPLIED, IS MADE.  
CONSULT HUGHES ASSOCIATES FOR FURTHER INFORMATION.

MATERIAL SAFETY DATA SHEET- 330 B CURING AGENT

Page #1

EMERGENCY NUMBER  
CHEMTRECH; 1-800-424-9300

DATE OF PRINT: JANUARY 2002

HAZARD RATINGS:

ACUTE HEALTH 3	FIRE 1	REACTIVITY 0	HAZARD RATING - LEAST-0, SLIGHT-1 MODERATE-2 HIGH-3 EXTREME- 4
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SECTION I

PRODUCT NAME: 330 B, CURING AGENT

C.A.S. CHEMICAL NAME: MIXTURE

CHEMICAL FAMILY: ALIPHATIC AMINE

SECTION II-A PRODUCT / INGREDIENTS

NO.	COMPOSITION	CAS NUMBER	PERCENT
P	330 B CURING AGENT	MIXTURE	100
1	N-AMINOETHYL PIPERAZINE	40-31-8	**
1A	DIETHYLENETRIAMINE	111-40-0	2
2	NONYL PHENOL	64852-15-3	**

\*COMPONENT 1A IS AN IMPURITY IN COMPONENT 1

THIS EPOXY RESIN HARDENER IS A MIXTURE OF THE ABOVE TWO COMPONENTS. THE PERCENTAGE OF EACH OF THESE INGREDIENTS IS PROPRIETARY INFORMATION IN ACCORDANCE WITH 29 CFR 1910.1200.

SECTION II-B ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
P	NO DATA AVAILABLE		
1	2.5 G/K (RAT)	880 MG/KG (RABBIT)	NO DATA AVAILABLE
1A			>300 PPM/8H (RAT)
2	1.3 G/KG (RAT)	2.0 G/KG (RABBIT)	>2 MG/L (RAT)

SECTION III HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

EYE CONTACT

CORROSIVE TO THE EYES AND MAY CAUSE SEVERE DAMAGE INCLUDING BLINDNESS. VAPORS MAY BE IRRITATING.

SKIN CONTACT

CORROSIVE TO THE SKIN. MAY CAUSE SKIN SENSITIZATION. MAY BE TOXIC IF ABSORBED THROUGH SKIN.

( CONTINUED ON PAGE #2 )

**SECTION III (CONT.)**

**HEALTH INFORMATION**

**INHALATION**

VAPORS / MIST MAY BE CORROSIVE TO UPPER RESPIRATORY TRACT. REPEATED EXPOSURE CAN RESULT IN LUNG DAMAGE. MAY CAUSE RESPIRATORY TRACT SENSITIZATION. MAY BE TOXIC IF INHALED.

**INGESTION**

CORROSIVE AND MAY CAUSE SEVERE AND PERMANENT DAMAGE TO MOUTH, THROAT AND STOMACH. MAY BE MODERATELY TOXIC IF SWALLOWED.

**SIGNS AND SYMPTOMS**

IRRITATION AS NOTED ABOVE. LUNG DAMAGE ( SCARRING, BRONCHITIS, EMPHYSEMA) MAY BE EVIDENCED BY SHORTNESS OF BREATH, ESPECIALLY ON EXERTION, AND MAY BE ACCOMPANIED BY CHRONIC COUGH. SKIN SENSITIZATION (ALLERGY) MAY BE EVIDENCED BY RASHES, ESPECIALLY HIVES. RESPIRATORY TRACT SENSITIZATION (E.G., ALLERGY, ASTHMA) MAY BE EVIDENCED BY WHEEZING WITH SHORTNESS OF BREATH AND COUGH.

**AGGRAVATED MEDICAL CONDITIONS**

PREEXISTING EYE, SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. PREEXISTING SKIN OR RESPIRATORY TRACT ALLERGIES MAY INCREASE THE CHANCE OF DEVELOPING INCREASED ALLERGY SYMPTOMS FROM EXPOSURE TO THIS PRODUCT.

**SECTION IV**

**OCCUPATIONAL EXPOSURE LIMITS**

NO.	PEL/TWA	OSHA	PEL/ CEILING	TLV / TWA	ACGIH	TLV / STEL	OTHER
P	NONE ESTABLISHED						
1	NONE ESTABLISHED						
1A	1 PPM			1 PPM (SKIN)*			
2	NONE ESTABLISHED						

\* THE SKIN NOTATION INDICATES THE SUBSTANCE MAY BE ABSORBED THROUGH THE SKIN, MUCOUS MEMBRANES, OR EYES, BY DIRECT OR AIRBORNE EXPOSURE, AND SUGGESTS THAT APPROPRIATE MEASURES BE TAKEN TO PREVENT SUCH ABSORPTION SO THAT THE EXPOSURE LIMIT IS NOT INVALIDATED.

**SECTION V**

**EMERGENCY AND FIRST AID PROCEDURES**

**EYE CONTACT**

IMMEDIATELY FLUSH WITH LARGE AMOUNT OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. RINSE CONTINUOUSLY WITH WATER WHILE ON WAY TO MEDICAL ATTENTION.

**SKIN CONTACT**

IMMEDIATELY REMOVE CONTAMINATED CLOTHING AND SHOES, WIPE EXCESS FROM SKIN AND FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. USE SOAP IF READILY AVAILABLE., OR FOLLOW BY THOROUGHLY WASHING WITH SOAP AND WATER. DO NOT REUSE CLOTHING UNTIL THOROUGHLY DECONTAMINATED. DESTROY LEATHER ARTICLES. GET MEDICAL ATTENTION.

**INHALATION**

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

**INGESTION**

DO NOT INDUCE VOMITING. GIVE ONE GLASS OF WATER UNLESS VICTIM IS DROWSY, UNCONSCIOUS, OR CONVULSING. GET MEDICAL ATTENTION IMMEDIATELY.

( CONTINUED ON PAGE #3 )

## SECTION VI

## SUPPLEMENTAL HEALTH INFORMATION

COMPONENT 1: N-AMINOETHYL PIPERAZINE (AEP) WAS FOUND TO BE POSITIVE IN THE CELL TRANSFORMATION GENETIC TOXICITY ASSAY AND NEGATIVE IN MOUSE LYMPHOMA GENETIC TOXICITY ASSAY.

IT HAS BEEN GENERALLY OBSERVED IN ANIMAL STUDIES THAT ALIPHATIC AMINE CAN CAUSE CHANGES IN THE LUNGS, LIVER, KIDNEYS AND HEART.

COMPONENT 2: 4-NONYL PHENOL IS THE SUBJECT OF A TCSA CONSENT ORDER WHICH REQUIRES CERTAIN CHEMICAL FATE AND ENVIRONMENTAL EFFECT TESTS.

COMPONENT 3: ALTHOUGH THE SIGNIFICANCE IS UNKNOWN, DIETHYLENTRIAMINE (DETA) HAS BEEN FOUND TO INCREASE THE FREQUENCY OF SISTER CHROMATID EXCHANGE. IT WAS ALSO FOUND TO BE POSITIVE IN THE UNSCHEDULED DNA MUTAGENICITY ASSAY. MICROBIAL TESTS AND IN VITRO GENE MUTATION ASSAY WERE NEGATIVE. A LIFETIME SKIN PAINTING STUDY IN MICE DID NOT RESULT IN CARCINOGENICITY. HISTOPATHOLOGICAL EFFECTS OF THE KIDNEY, LIVER SPLEEN AND ADRENAL WERE OBSERVED IN TWO RAT LIFETIME FEEDING STUDIES.

## SECTION VII

## PHYSICAL DATA

BOILING POINT: >432°F (>222°C)	SPECIFIC GRAVITY: 0.97 (H <sub>2</sub> O=1)	VAPOR PRESSURE: <1.0 @ 20°C
MELTING POINT: NOT AVAILABLE	SOLUBILITY: PARTIAL (IN WATER)	VAPOR DENSITY: NOT AVAILABLE
EVAPORATION RATE (n-BUTYL acetate =1): NOT AVAILABLE		

APPEARANCE AND ODOR: CLEAR LIGHT COLORED LIQUID WITH AMINE ODOR.

## SECTION VIII

## FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD: >200 ° F (>93 ° C ) (SETAFLASH)	FLAMMABLE LIMITS % VOLUME IN AIR LOWER: 0.8 UPPER: NOT AVAILABLE
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## EXTINGUISHING MEDIA

USE WATER FOG, CARBON DIOXIDE (CO<sub>2</sub>), DRY CHEMICAL, ALCOHOL FOAM. WATER OR FOG MAY CAUSE FROTHING WHICH CAN BE VIOLENT, ESPECIALLY IF SPRAYED INTO CONTAINERS OF HOT OR BURNING LIQUID.

## SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS

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 HAZARD

DELAYED LUNG DAMAGE (PULMONARY EDEMA) CAN BE EXPERIENCED AFTER EXPOSURE TO COMBUSTION PRODUCTS, SOMETIMES HOURS AFTER THE EXPOSURE. NITROGEN OXIDES AND NITROGEN CONTAINING ORGANIC COMPOUNDS MAY BE RELEASED UPON COMBUSTION. SEE SECTION XII.

## SECTION IX

## REACTIVITY

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

( CONTINUED ON PAGE #4 )

## SECTION IX ( REACTIVITY CONT. )

**CONDITIONS AND MATERIALS TO AVOID:**

AVOID HEAT, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS. CAN REACT VIGOROUSLY WITH STRONG OXIDIZING AGENTS, STRONG LEWIS OR MINERAL ACIDS, AND STRONG MINERAL AND ORGANIC BASES, ESPECIALLY PRIMARY AND SECONDARY ALIPHATIC AMINES. REACTIONS WITH SOME CURING AGENTS MAY PRODUCE CONSIDERABLE HEAT.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

NITROGEN OXIDES, CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

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**SECTION X****EMPLOYEE PROTECTION**

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**RESPIRATORY PROTECTION**

DO NOT BREATHE VAPOR / MISTS. IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVER EXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER A FULL-FACE, ATMOSPHERE-SUPPLYING RESPIRATOR OR AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

**PROTECTIVE CLOTHING**

DO NOT GET IN EYES. WEAR CHEMICAL GOGGLES IF THERE IS A POTENTIAL CONTACT WITH EYES. DO NOT GET ON SKIN. ON CLOTHING. WEAR CHEMICAL-RESISTANT PROTECTIVE CLOTHING SUCH AS GLOVES, OTHER CLOTHING OR APRON, OVERSHOES AND A FACE-SHIELD SUITABLE TO POTENTIAL EXPOSURE.

**ADDITIONAL PROTECTIVE MEASURES**

USE VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE FOR EMERGENCY USE.

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**SECTION XI****ENVIRONMENTAL PROTECTION**

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**SPILL OR LEAK PROCEDURES**

DANGER, CORROSIVE. PREVENT ALL BODILY CONTACT WITH SPILL MATERIAL. WEAR APPROPRIATE RESPIRATOR AND FULL-BODY PROTECTIVE CLOTHING. -SMALL SPILLS- SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER SUITABLE MATERIAL AND PLACE IN NON-LEAKING CONTAINER AND SEAL TIGHTLY FOR PROPER DISPOSAL.

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**SECTION XII****SPECIAL PRECAUTIONS**

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DANGER! CORROSIVE EXTREMELY IRRITATING TO THE EYES. MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION AND SENSITIZATION. CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN HAZARDOUS PRODUCT RESIDUES. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, APPLYING COSMETIC, OR USING TOILET FACILITIES. LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE. CONTAMINATED LEATHER ARTICLES INCLUDING SHOES CANNOT BE DECONTAMINATED AND SHOULD BE DESTROYED TO PREVENT REUSE.

HEATING THIS CURING AGENT IN THE PRESENCE OF AIR MAY CAUSE THERMAL AND OXIDATIVE DECOMPOSITION. WITH SOME EPOXY RESINS, IT MAY PRODUCE EXOTHERMIC REACTIONS WHICH IN LARGE MASSES CAN CAUSE RUNAWAY POLYMERIZATION AND CHARRING OF THE REACTANTS. FUMES AND VAPORS FROM THE THERMAL AND CHEMICAL DECOMPOSITIONS VARY WIDELY IN COMPOSITION AND TOXICITY. DO NOT BREATHE FUMES. USE A NIOSH-APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVER EXPOSURE. IN ACCORD WITH 29 CFR 1910.134, USE EITHER A ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

STORE IN A COOL, DRY PLACE WITH ADEQUATE VENTILATION. KEEP AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES. MISUSE OF EMPTY CONTAINERS CAN BE HAZARDOUS. CUTTING OR WELDING OF EMPTY CONTAINERS MIGHT CAUSE FIRE, EXPLOSION OR TOXIC FUMES FROM RESIDUES. DO NOT PRESSURIZE CONTAINERS TO EMPTY THEM.

( CONTINUED ON PAGE #5 )



**SECTION XIII TRANSPORTATION REQUIREMENTS**

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:  
CLASS 8 (CORROSIVE MATERIAL), III

THE DOT INFORMATION IN THIS SECTION IS BASED UPON AN EVALUATION OF THE PRODUCT AGAINST THE REQUIREMENTS OF 49 CFR 172 AND 173 AS REVISED BY HM-181.

D.O.T. PROPER SHIPPING NAME:  
POLYALKYLAMINES, N.O.S. (CONTAINS N-AMINOETHYL PIPERAZINE)

**OTHER REQUIREMENTS:**

UN2735, GUIDE 60. THIS PRODUCT CONTAINS NONYL PHENOL WHICH IS A MARINE POLLUTANT UNDER 49 CFR 172.101, APPENDIX B.

**SECTION XIV OTHER REGULATORY CONTROLS**

THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES.

PROTECTION OF STRATOSPHERE OZONE (PURSUANT TO SECTION 611 OF THE CLEAN AIR ACT AMENDMENTS OF 1990): PER CFR PART 82. THIS PRODUCT DOES NOT CONTAIN NOR WAS IT DIRECTLY MANUFACTURED WITH ANY CLASS I OR CLASS II OZONE DEPLETING SUBSTANCE.

IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE ATTACHED ENVIRONMENTAL DATA SHEET (EDS) SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.

**SECTION XV STATE REGULATORY INFORMATION**

THE FOLLOWING CHEMICALS ARE SPECIFICALLY LISTED BY INDIVIDUAL STATES; OTHER PRODUCTS SPECIFIC HEALTH AND SAFETY DATA IN OTHER SECTIONS OF THE MSDS MAY ALSO BE APPLICABLE FOR STATE REQUIREMENTS. FOR DETAILS ON YOUR REGULATORY REQUIREMENTS YOU SHOULD CONTACT THE APPROPRIATE AGENCY IN YOUR STATE.

STATE LISTED COMPONENT	PERCENT	STATE CODE
N-AMINOETHYL PIPERAZINE (CAS NO;140-31-8)	*	CA, CT, FL, LA, MA, NJ, PA
NONYL PHENOL (CAS NO; 84852-15-3)	*	CA, FL, MA, PA
DIETHYLENETRIAMINE (CAS NO; 111-40-0)	<2	CA, FL, IL, LA, MA, ME, MN, NJ, PA, RI

THE SPECIFIC PROPORTION OF THIS COMPONENT IS CONSIDERED TRADE SECRET INFORMATION.

REGULATORY INFORMATION: (NOT MEANT TO BE ALL-INCLUSIVE--SELECTED REGULATIONS REPRESENTED).

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