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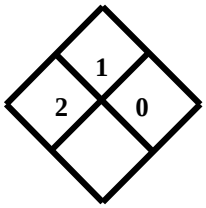
Effective Date: 10/2/08 **Material Safety Data Sheet** **MSDS No: 6089**

1. PRODUCT IDENTIFICATION



NFPA RATING

Health:	**2**
Flammability:	**1**
Reactivity:	**0**
Personal Protection:	

HMIS RATING

Trade Name: RenLam 569

Chemical Family: Epoxy

Synonyms:
RP 569 Resin

Intended Use or Product Type: Laminating paste resin

2. COMPOSITION / INFORMATION ON INGREDIENTS

OSHA	CAS No.	CHEMICAL IDENTITY	EXPOSURE LIMITS					CARCINOGEN STATUS		
			ACGIH		OSHA		MFR.	IARC	NTP	OSHA
			TWA	STEL	PEL	STEL				
*	25068-38-6 Common Name: Concentration	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane Bisphenol A diglycidyl ether polymer 10.00 - 30.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	84-74-2 Common Name: Concentration	1,2-Benzenedicarboxylic acid, dibutyl ester Dibutyl phthalate 3.00 - 7.00 % by wt	5 mg/m3	NE	5 mg/m3	NE	NE	NR	NR	NR

* = OSHA Hazardous Ingredient

3. HAZARDS IDENTIFICATION

Emergency Overview: Causes skin and eye irritation. May cause allergic skin reaction.

Primary Route(s) of Entry: Dermal; heated product may produce inhalable vapors.

Chronic: This product contains dibutyl phthalate which may cause adverse reproductive effects in laboratory animals. The relevance to humans is not known.

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4. FIRST AID MEASURES

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Skin: Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes. Seek immediate medical attention.

Inhalation: Remove to fresh air. Seek immediate medical attention.

Eyes: Immediately flush eyes with water for at least 15 minutes. Seek immediate medical attention.

Overexposure Effects: Causes skin and eye irritation. May cause allergic skin reaction.

Medical Conditions Aggravated by Exposure: Skin and eye conditions.

Additional Information: Referral to a physician is recommended if there is any question about the seriousness of any injury.

5. FIRE FIGHTING MEASURES

Flash Point:	> 200°F (> 93 °C)
Flash Point Method Used:	Estimated
Flammable Limits in Air (Lower - % by volume):	Not established
Flammable Limits in Air (Upper - % by volume):	Not established

Fire Fighting Extinguishing Media: Carbon dioxide, dry chemical, foam, water.

Fire Fighting Equipment: Use self-contained breathing apparatus.

Fire and Explosion Hazards: Decomposition and combustion products may be toxic.

6. ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Remove spillage by absorbing in absorbent material.

7. HANDLING AND STORAGE

Signal Word: Warning!

Precautions: Can cause skin irritation, eye irritation, and allergic skin reaction. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

Other Handling Information: Nuisance dust may be generated when sanding or sawing cured material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Skin Protection: Wear impermeable gloves.

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Respiratory Protection: Use NIOSH approved organic vapor cartridge respirator when vapor/mist exposure is likely.

Eye Protection: Wear splash-proof chemical goggles.

Engineering Controls: General mechanical and local exhaust in accordance with ACGIH recommendations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	White to off-white
Odor:	Almost No
Physical State:	Paste
Solubility in Water:	Insoluble
Vapor Pressure:	Not Determined
Specific Gravity:	1.3 - 1.9 (water = 1)
Boiling Point:	Not Determined
Melting Point:	Not Determined
Evaporation Rate:	Not Determined
Density:	Not Determined
Vapor Density:	Not Determined
VOC:	0 g/L
pH:	Not Determined
Coefficient of water/oil:	Not Determined

Percent Volatile: Not determined.

10. STABILITY AND REACTIVITY

Conditions to Avoid: Excessive heat for prolonged periods of time.

Stability: Stable.

Incompatibility: Strong oxidizers, acids and bases.

Hazardous Decomposition Products: Combustion may form toxic materials, such as carbon dioxide, carbon monoxide.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Sensitization: Possible in susceptible individuals.

Carcinogenicity: Based on several dermal studies in mice, IARC had concluded in 1999 that diglycidyl ether of bisphenol A is not classifiable as a human carcinogen (Group 3) and has limited evidence of carcinogenicity in animals.

Skin Irritation: Irritant.

Eye Irritation: Irritant.

Reproduction: For diglycidyl ether of bisphenol A- There were no treatment-related histologic changes noted nor effects on reproductive performance in rats at any oral dose tested.

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Teratogenicity: For diglycidyl ether of bisphenol A- No adverse effects on embryonic or fetal development was observed in rabbits after dermal exposure.

Mutagenicity: For diglycidyl ether of bisphenol A- In vitro tests showed mutagenic effects which were not observed with in vivo tests.

Sub-Chronic: Diglycidyl ether of bisphenol A, applied to the skin of rats five times per week for approximately 13 weeks, caused no apparent systemic toxicity with the exception of decreased body weight and body weight gain.

Additional Information: This product contains dibutyl phthalate which may cause adverse reproductive effects in laboratory animals. The relevance to humans is not known.

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Consult qualified local or corporate personnel for method that will comply with local, state and federal health and environmental regulations.

14. TRANSPORT INFORMATION

DOT: Non-Bulk
Proper Shipping Name: Not Regulated
IATA: Non-Bulk
Proper Shipping Name: Not Regulated
IMDG: Non-Bulk
Proper Shipping Name: Not Regulated
TDG: Non-Bulk
Proper Shipping Name: Not Regulated

Motor Freight Classification Resin compounds, N.O.I.

15. REGULATORY INFORMATION

US Federal Regulations:

Occupational Safety and Health Act (OSHA): This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.

Resource Conservation and Recovery Act (RCRA): Not a hazardous waste under RCRA (40 CFR 261).

SARA Title III: Section 313 Toxic Chemical List (TCL): This product contains a toxic chemical(s) for routine annual toxic chemical release reporting under section 313 (40 CFR 372). This information must be included in all MSDS's copied or distributed for this material.

Chemical Name: 1,2-Benzenedicarboxylic acid, dibutyl ester
Common Name: Dibutyl phthalate

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Percent in Composition: 3 - 7 % by wt
Comment:

TSCA Section 8(b) - Inventory Status: All chemical components of this product are in compliance with TSCA inventory requirements.

TSCA Section 12(b) - Export Notification: This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

International Regulations:

Canadian Inventory Status: This product contains only chemicals that are currently listed on the Canadian Domestic Substance List.

Canadian WHMIS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. D2B

State Regulations:

California Proposition 65: This product does not contain any chemicals currently on the California list of Known Carcinogens and Reproductive Toxins.

Pennsylvania Right-to-Know: The following is required composition information:

Chemical Name: Sulfuric acid, barium salt (1:1)
Common Name: Barium Sulfate
CAS Number: 7727-43-7
Comment: Hazardous Substance

Chemical Name: Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane
Common Name: Bisphenol A diglycidyl ether polymer
CAS Number: 25068-38-6
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Glass, oxide
Common Name: Fiberglass
CAS Number: 65997-17-3
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: 1- Propene, Homopolymer
Common Name: Polypropylene powder
CAS Number: 9003-07-0
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: 1,2-Benzenedicarboxylic acid, dibutyl ester
Common Name: Dibutyl phthalate
CAS Number: 84-74-2
Comment: Environmental Hazardous Substance

Chemical Name: Cellulose
CAS Number: 9004-34-6
Comment: Hazardous Substance

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16. OTHER INFORMATION

MSDS No: 6089
Approved By: Dianne Blessing
Title: EHS Specialist

Disclaimer: The information and recommendations contained herein are based upon tests in controlled laboratory conditions, are believed to be correct, and are provided for the sole purpose of hazard communication as part of Huntsman's product safety program. This product has not been tested for, and therefore is not recommended or suitable for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended or likely, or for uses for which implantation within the human body is intended, and Huntsman assumes no liability for any such uses.

The information and recommendations contained herein are not intended to constitute performance information concerning the product, which is available in separate technical data sheets available from Huntsman upon request. Users are urged, and are urged to urge others who may come in contact with the product, to obtain and consult data sheets prior to purchase, use, transportation or storage of the product.

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USER SHOULD CONSULT A LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENTAL AGENCY TO DETERMINE THE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT. HUNTSMAN DOES NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.

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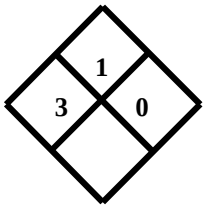
Effective Date: 8/11/09 **Material Safety Data Sheet** **MSDS No: 6090**

1. PRODUCT IDENTIFICATION

Trade Name: Ren 569-1

Chemical Family: Amine



NFPA RATING

Health:	**3***
Flammability:	**1**
Reactivity:	**0**
Personal Protection:	

HMIS RATING

Synonyms:
RP 569-1 Hardener

Intended Use or Product Type: Laminating hardener

2. COMPOSITION / INFORMATION ON INGREDIENTS

OSHA	CAS No.	CHEMICAL IDENTITY	EXPOSURE LIMITS					CARCINOGEN STATUS		
			ACGIH		OSHA		MFR.	IARC	NTP	OSHA
			TWA	STEL	PEL	STEL				
*	111-40-0 Common Name: Concentration	1,2-Ethanediamine, N-(2-aminoethyl)- Diethylenetriamine 1.00 - 5.00 % by wt	1 ppm	NE	NE	NE	NE	NR	NR	NR
*	112-24-3 Common Name: Concentration	1,2-Ethanediamine, N,N'-bis(2-aminoethyl)- Triethylenetetramine 10.00 - 30.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	112-57-2 Common Name: Concentration	1,2-Ethanediamine, N-(2-aminoethyl)-N'-[2-[(2-aminoethyl)amino]ethyl]- Tetraethylenepentamine 5.00 - 10.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	140-31-8 Common Name: Concentration	1-Piperazineethanamine Aminoethylpiperazine 1.00 - 5.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	26950-63-0 Common Name: Concentration	1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-, polymer with methyloxirane Propoxylated Triethylenetetramine 10.00 - 30.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	68910-93-0	Fatty acids, tall-oil, reaction	NE	NE	NE	NE	NE	NR	NR	NR

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	Common Name: Concentration	products with polyethylenepolyamines Aliphatic polyaminoamide 30.00 - 60.00 % by wt								
*	80-05-7 Common Name: Concentration	Phenol, 4,4'-(1-methylethylidene)bis- Bisphenol A 5.00 - 10.00 % by wt	NE	NE	NE	NE	TLV 5 mg/m3	NR	NR	NR

NE = Not Established NR = Not Reviewed * = OSHA Hazardous Ingredient

3. HAZARDS IDENTIFICATION

Emergency Overview: Warning! ! Causes severe eye irritation and possible eye damage. Causes severe skin irritation and possible allergic skin reaction. Hamful if inhaled. Harmful if swallowed.

Primary Route(s) of Entry: Dermal; heated product may produce inhalable vapors.

Chronic: Overexposure may have effects on lung, kidney, and liver.
Overexposure may have effects on developing fetus.

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Skin: Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes. Seek immediate medical attention.

Inhalation: Remove to fresh air. Seek immediate medical attention.

Eyes: Immediately flush eyes with water for at least 15 minutes. Seek immediate medical attention.

Overexposure Effects: Severe eye irritation, possibly damaging. Skin irritation, sensitization and dermatitis.

Medical Conditions Aggravated by Exposure: Skin, eye and pulmonary conditions.

Additional Information: Referral to a physician is recommended if there is any question about the seriousness of any injury.

5. FIRE FIGHTING MEASURES

Flash Point: 235°F (113 °C)
Flash Point Method Used: PMCC
Flammable Limits in Air (Lower - % by volume): Not established
Flammable Limits in Air (Upper - % by volume): Not established

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Fire Fighting Extinguishing Media: Carbon dioxide, dry chemical, foam, water.

Fire Fighting Equipment: Use self-contained breathing apparatus.

Fire and Explosion Hazards: Decomposition and combustion products may be toxic.

6. ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Remove spillage by absorbing in absorbent material.

7. HANDLING AND STORAGE

Signal Word: Danger!

Precautions: Causes severe skin irritation and severe eye irritation and may cause skin and eye burns. Can cause allergic skin reaction. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or mist. Keep container closed when not in use. Use with adequate ventilation. Wash thoroughly after handling.

Other Handling Information: Nuisance dust may be generated when sanding or sawing cured material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Skin Protection: Wear impermeable gloves.

Respiratory Protection: Use NIOSH approved organic vapor cartridge respirator when vapor/mist exposure is likely.

Eye Protection: Wear splash-proof chemical goggles.

Engineering Controls: General mechanical and local exhaust in accordance with ACGIH recommendations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	Clear blue
Odor:	Amine
Physical State:	Low Viscosity Liquid
Solubility in Water:	Miscible
Vapor Pressure:	0.014 mm Hg at 25°C (77 °F)
Specific Gravity:	0.96 - 0.99 (water = 1)
Boiling Point:	Not Determined
Evaporation Rate:	Not Determined
Vapor Density:	Not Determined
VOC:	Negligible
pH:	Not Determined
Coefficient of water/oil:	Not Evaluated

10. STABILITY AND REACTIVITY

Conditions to Avoid: Excessive heat for prolonged periods of time.

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Stability: Stable.

Incompatibility: Strong oxidizers, acids and bases.

Hazardous Decomposition Products: Combustion may form toxic materials, such as carbon dioxide, carbon monoxide.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral Effects (LD50): Aminoethylpiperazine= 2140 mg/kg (rat)
Diethylenetriamine= 1080 - 2330 mg/kg (rat)
Triethylenetetramine= 2500 - 4340 mg/kg (rat)
Tetraethylenepentamine= 3250 mg/kg (rat)

Acute Dermal Toxicity (LD50): Aminoethylpiperazine= 880 mg/kg (rabbit)
Diethylenetriamine= 672 - 1240 mg/kg (rabbit)
Triethylenetetramine= 550 - 800 mg/kg (rabbit)
Tetraethylenepentamine= 660 - 1260 mg/kg (rabbit)

Acute Inhalation Exposure Effects: Respiratory irritant.

Sensitization: May cause allergic skin reaction and respiratory sensitivity in some people.

Skin Irritation: Severe skin irritant.

Eye Irritation: Severe eye irritant.

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Consult qualified local or corporate personnel for method that will comply with local, state and federal health and environmental regulations.

14. TRANSPORT INFORMATION

DOT: Non-Bulk	
Proper Shipping Name:	Resin compounds, N.O.I.
IATA: Non-Bulk	
Proper Shipping Name:	Not Regulated
IMDG: Non-Bulk	
Proper Shipping Name:	Not Regulated
TDG: Non-Bulk	
Proper Shipping Name:	Not Regulated

Department of Transportation: Not regulated as a hazardous material by the U.S. Dept. of Transportation (DOT) 49 CFR 172.101 hazardous materials table.

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15. REGULATORY INFORMATION

US Federal Regulations:

Occupational Safety and Health Act (OSHA): This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.

Resource Conservation and Recovery Act (RCRA): Not a hazardous waste under RCRA (40 CFR 261).

SARA Title III: Section 304 - CERCLA: This product contains the following chemicals regulated under Section 304 (40 CFR 302) as hazardous substance(s) for emergency release notification ("CERCLA" List):

Chemical Name: Phenol, 4,4'-(1-methylethylidene)bis-
Common Name: Bisphenol A
CAS Number: 80-05-7
Percent in Composition: 5 - 10 % by wt

SARA Title III: Section 313 Toxic Chemical List (TCL): This product contains a toxic chemical(s) for routine annual toxic chemical release reporting under section 313 (40 CFR 372). This information must be included in all MSDS's copied or distributed for this material.

Chemical Name: Phenol, 4,4'-(1-methylethylidene)bis-
Common Name: Bisphenol A
Percent in Composition: 5 - 10 % by wt

TSCA Section 8(b) - Inventory Status: All chemical components of this product are in compliance with TSCA inventory requirements.

TSCA Section 12(b) - Export Notification: This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

International Regulations:

Australian Inventory Status: This product contains only chemicals which are currently listed on the Australian Inventory of Chemical Substances.

Canadian Inventory Status: This product contains only chemicals that are currently listed on the Canadian Domestic Substance List.

Canadian WHMIS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. D2A, D2B

European Inventory Status (EINECS): This product contains only chemicals that are currently listed on the European Inventory of Existing Commercial Chemical Substances (EINECS).

Japanese Inventory Status: This product contains one or more chemicals currently not on the Japanese Ministry of International Trade and Industry List of Existing and New Chemical Substances.

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State Regulations:

California Proposition 65: This product does not contain any chemicals currently on the California list of Known Carcinogens and Reproductive Toxins.

Pennsylvania Right-to-Know: The following is required composition information:

Chemical Name: Fatty acids, tall-oil, reaction products with polyethylenepolyamines
Common Name: Aliphatic polyaminoamide
CAS Number: 68910-93-0
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-, polymer with methyloxirane
Common Name: Propoxylated Triethylenetetramine
CAS Number: 26950-63-0
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-
Common Name: Triethylenetetramine
CAS Number: 112-24-3
Comment: Hazardous Substance

Chemical Name: Phenol, 4,4'-(1-methylethylidene)bis-
Common Name: Bisphenol A
CAS Number: 80-05-7
Comment: Environmental Hazardous Substance

Chemical Name: 1,2-Ethanediamine, N-(2-aminoethyl)-N'-[2-[(2-aminoethyl)amino]ethyl]-
Common Name: Tetraethylenepentamine
CAS Number: 112-57-2
Comment: Hazardous Substance

Chemical Name: 1-Piperazineethanamine
Common Name: Aminoethylpiperazine
CAS Number: 140-31-8
Comment: Hazardous Substance

Chemical Name: 1,2-Ethanediamine, N-(2-aminoethyl)-
Common Name: Diethylenetriamine
CAS Number: 111-40-0
Comment: Hazardous Substance

Chemical Name: 1,2-Ethanediamine
Common Name: Ethylenediamine
CAS Number: 107-15-3
Comment: Special Hazardous Substance

16. OTHER INFORMATION

MSDS No:	6090
Reason Issued:	8/09 Add WHMIS, update Haz
Approved By:	Matt Austin
Title:	EHS Chemist

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Other Information: J/KLFLu (J10026330) [J74]

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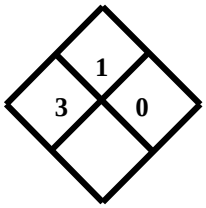
Effective Date: 8/11/09 **Material Safety Data Sheet** **MSDS No: 6091**

1. PRODUCT IDENTIFICATION



NFPA RATING

Health:	**3***
Flammability:	**1**
Reactivity:	**0**
Personal Protection:	

HMIS RATING

Trade Name: Ren 569-2

Chemical Family: Amine

Synonyms:
RP 569-2 Hardener

Intended Use or Product Type: Laminating hardener

2. COMPOSITION / INFORMATION ON INGREDIENTS

OSHA	CAS No.	CHEMICAL IDENTITY	EXPOSURE LIMITS					CARCINOGEN STATUS		
			ACGIH		OSHA		MFR.	IARC	NTP	OSHA
			TWA	STEL	PEL	STEL				
*	111-40-0 Common Name: Concentration	1,2-Ethanediamine, N-(2-aminoethyl)-Diethylenetriamine 1.00 - 5.00 % by wt	1 ppm	NE	NE	NE	NE	NR	NR	NR
*	112-24-3 Common Name: Concentration	1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-Triethylenetetramine 1.00 - 5.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	112-57-2 Common Name: Concentration	1,2-Ethanediamine, N-(2-aminoethyl)-N'-[2-[(2-aminoethyl)amino]ethyl]-Tetraethylenepentamine 5.00 - 10.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	140-31-8 Common Name: Concentration	1-Piperazineethanamine Aminoethylpiperazine 1.00 - 5.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	68910-93-0 Common Name: Concentration	Fatty acids, tall-oil, reaction products with polyethylenepolyamines Aliphatic polyaminoamide 60.00 - 100.00 % by wt	NE	NE	NE	NE	NE	NR	NR	NR
*	80-05-7	Phenol, 4,4'-(1-	NE	NE	NE	NE	TLV 5	NR	NR	NR

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		methylethylidene)bis-					mg/m3				
	Common Name:	Bisphenol A									
	Concentration	5.00 - 10.00 % by wt									

NE = Not Established NR = Not Reviewed * = OSHA Hazardous Ingredient

3. HAZARDS IDENTIFICATION

Emergency Overview: Corrosive - causes skin and eye burns. Causes severe irritation if inhaled and can cause allergic respiratory reaction and allergic skin reaction. Can be harmful if absorbed through skin and may be harmful if swallowed.

Primary Route(s) of Entry: Dermal; heated product may produce inhalable vapors.

Chronic: Overexposure may have effects on lung, kidney, and liver. Overexposure may have effects on developing fetus.

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Skin: Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes. Seek immediate medical attention.

Inhalation: Remove to fresh air. Seek immediate medical attention.

Eyes: Immediately flush eyes with water for at least 15 minutes. Seek immediate medical attention.

Overexposure Effects: Causes severe skin irritation and severe eye irritation and may cause skin and eye burns. Causes irritation if inhaled and can cause allergic skin reaction and allergic respiratory reaction. Can be harmful if inhaled or if absorbed through skin.

Medical Conditions Aggravated by Exposure: Skin, eye and pulmonary conditions.

Additional Information: Referral to a physician is recommended if there is any question about the seriousness of any injury.

5. FIRE FIGHTING MEASURES

Flash Point:	235°F (113 °C)
Flash Point Method Used:	PMCC
Flammable Limits in Air (Lower - % by volume):	Not established
Flammable Limits in Air (Upper - % by volume):	Not established

Fire Fighting Extinguishing Media: Carbon dioxide, dry chemical, foam, water.

Fire Fighting Equipment: Use self-contained breathing apparatus.

Fire and Explosion Hazards: Decomposition and combustion products may be toxic.

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6. ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Remove spillage by absorbing in absorbent material.

7. HANDLING AND STORAGE

Signal Word: Danger!

Precautions: Causes severe skin irritation and severe eye irritation and may cause skin and eye burns. Can cause allergic skin reaction. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or mist. Keep container closed when not in use. Use with adequate ventilation. Wash thoroughly after handling.

Other Handling Information: Nuisance dust may be generated when sanding or sawing cured material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Skin Protection: Wear impermeable gloves.

Respiratory Protection: Use NIOSH approved organic vapor cartridge respirator when vapor/mist exposure is likely.

Eye Protection: Wear splash-proof chemical goggles.

Engineering Controls: General mechanical and local exhaust in accordance with ACGIH recommendations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	Clear blue
Physical State:	Low Viscosity Liquid
Solubility in Water:	Miscible
Vapor Pressure:	0.014 mm Hg at 25°C (77 °F)
Specific Gravity:	0.96 (water = 1)
Boiling Point:	Not Determined
Melting Point:	Not Determined
Evaporation Rate:	Not Determined
Density:	Not Determined
Vapor Density:	Not Determined
VOC:	46.717 g/L
pH:	11.4
Coefficient of water/oil:	Not Determined

10. STABILITY AND REACTIVITY

Conditions to Avoid: Excessive heat for prolonged periods of time.

Stability: Stable.

Incompatibility: Strong oxidizers, acids and bases.

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Hazardous Decomposition Products: Combustion may form toxic materials, such as carbon dioxide, carbon monoxide.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral Effects (LD50): Component(s) are slightly toxic, 500 - 5000 mg/kg (rat).
Diethylenetriamine= 1080 - 2330 mg/kg (rat)
Aminoethylpiperazine= 2140 mg/kg (rat)
Triethylenetetramine= 2500 - 4340 mg/kg (rat)
Tetraethylenepentamine= 3250 mg/kg (rat)

Acute Dermal Toxicity (LD50): Component(s) are toxic, 200 - 1000 mg/kg (rabbit).
Triethylenetetramine= 550 - 800 mg/kg (rabbit)
Tetraethylenepentamine= 660 - 1260 mg/kg (rabbit)
Diethylenetriamine= 672 - 1240 mg/kg (rabbit)
Aminoethylpiperazine= 880 mg/kg (rabbit)

Acute Inhalation Exposure Effects: Respiratory irritant.

Sensitization: May cause allergic skin reaction and respiratory sensitivity in some people.

Skin Irritation: Severe skin irritant.

Eye Irritation: Severe eye irritant.

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Consult qualified local or corporate personnel for method that will comply with local, state and federal health and environmental regulations.

14. TRANSPORT INFORMATION

DOT: Non-Bulk
Proper Shipping Name: Resin compounds, N.O.I.
IATA: Non-Bulk
Proper Shipping Name: Not Regulated
IMDG: Non-Bulk
Proper Shipping Name: Not Regulated
TDG: Non-Bulk
Proper Shipping Name: Not Regulated

Department of Transportation: Not regulated as a hazardous material by the U.S. Dept. of Transportation (DOT) 49 CFR 172.101 hazardous materials table.

15. REGULATORY INFORMATION

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US Federal Regulations:

Occupational Safety and Health Act (OSHA): This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.

Resource Conservation and Recovery Act (RCRA): Not a hazardous waste under RCRA (40 CFR 261).

SARA Title III: Section 304 - CERCLA: This product contains the following chemicals regulated under Section 304 (40 CFR 302) as hazardous substance(s) for emergency release notification ("CERCLA" List):

Chemical Name: Phenol, 4,4'-(1-methylethylidene)bis-
Common Name: Bisphenol A
CAS Number: 80-05-7
Percent in Composition: 5 - 10 % by wt

SARA Title III: Section 313 Toxic Chemical List (TCL): This product contains a toxic chemical(s) for routine annual toxic chemical release reporting under section 313 (40 CFR 372). This information must be included in all MSDS's copied or distributed for this material.

Chemical Name: Phenol, 4,4'-(1-methylethylidene)bis-
Common Name: Bisphenol A
Percent in Composition: 5 - 10 % by wt

TSCA Section 8(b) - Inventory Status: All chemical components of this product are in compliance with TSCA inventory requirements.

TSCA Section 12(b) - Export Notification: This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

International Regulations:

Australian Inventory Status: This product contains only chemicals which are currently listed on the Australian Inventory of Chemical Substances.

Canadian Inventory Status: This product contains only chemicals that are currently listed on the Canadian Domestic Substance List.

Canadian WHMIS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. D2A, D2B

European Inventory Status (EINECS): This product contains only chemicals that are currently listed on the European Inventory of Existing Commercial Chemical Substances (EINECS).

Japanese Inventory Status: This product contains one or more chemicals currently not on the Japanese Ministry of International Trade and Industry List of Existing and New Chemical Substances.

State Regulations:

California Proposition 65: This product does not contain any chemicals currently on the California list of Known Carcinogens and Reproductive Toxins.

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Pennsylvania Right-to-Know: The following is required composition information:

Chemical Name: Fatty acids, tall-oil, reaction products with polyethylenepolyamines
Common Name: Aliphatic polyaminoamide
CAS Number: 68910-93-0
Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Phenol, 4,4'-(1-methylethylidene)bis-
Common Name: Bisphenol A
CAS Number: 80-05-7
Comment: Environmental Hazardous Substance

Chemical Name: 1,2-Ethanediamine, N-(2-aminoethyl)-N'-[2-[(2-aminoethyl)amino]ethyl]-
Common Name: Tetraethylenepentamine
CAS Number: 112-57-2
Comment: Hazardous Substance

Chemical Name: 1-Piperazineethanamine
Common Name: Aminoethylpiperazine
CAS Number: 140-31-8
Comment: Hazardous Substance

Chemical Name: 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-
Common Name: Triethylenetetramine
CAS Number: 112-24-3
Comment: Hazardous Substance

Chemical Name: 1,2-Ethanediamine, N-(2-aminoethyl)-
Common Name: Diethylenetriamine
CAS Number: 111-40-0
Comment: Hazardous Substance

Chemical Name: 1,2-Ethanediamine
Common Name: Ethylenediamine
CAS Number: 107-15-3
Comment: Special Hazardous Substance

16. OTHER INFORMATION

MSDS No:	6091
Reason Issued:	8/09 update for WHMIS & Hazards
Prepared By:	Matt Austin
Title:	EHS Specialist

Other Information: J/KLFLu (J10026330) [J74]

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The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.

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