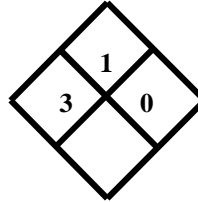


P.O. Box 4980  
The Woodlands, TX 77387-4980

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**Effective Date:** 5/19/08**Material Safety Data Sheet**

MSDS No: 35405

**1. PRODUCT IDENTIFICATION****Trade Name:** Hardener HV 1253**Chemical Family:** Amine

NFPA RATING

<b>Health:</b>	<b>3*</b>
<b>Flammability:</b>	<b>1</b>
<b>Reactivity:</b>	<b>0</b>
<b>Personal Protection:</b>	

HMIS RATING

**Synonyms:**

LSA 11-757 Hardener

**Intended Use or Product Type:** Carvable paste**2. COMPOSITION / INFORMATION ON INGREDIENTS**

O S H A	CAS No.	CHEMICAL IDENTITY	EXPOSURE LIMITS				CARCINOGEN STATUS			
			ACGIH		OSHA		MFR.	IARC	NTP	OSHA
			TWA	STEL	PEL	STEL				
*	1077-56-1	Benzenesulfonamide, N-Ethyl-2-Methyl- Substituted benzenesulfonamide Common Name: Concentration	NE	NE	NE	NE	NE	NR	NR	NR
*	111-40-0	1,2-Ethanediamine, N-(2-aminoethyl)- Diethylenetriamine Common Name: Concentration	1 ppm	NE	NE	NE	NE	NR	NR	NR
*	112-24-3	1,2-Ethanediamine, N,N'-bis(2-aminoethyl)- Triethylenetetramine Common Name: Concentration	NE	NE	NE	NE	NE	NR	NR	NR
*	112-57-2	1,2-Ethanediamine, N-(2-aminoethyl)-N'-[2-[(2-aminoethyl)amino]ethyl]- Tetraethylenepentamine Common Name: Concentration	NE	NE	NE	NE	NE	NR	NR	NR
*	80-05-7	Phenol, 4,4'-(1-methylethylidene)bis- Bisphenol A Common Name: Concentration	NE	NE	NE	NE	TLV 5 mg/m3	NR	NR	NR

Effective Date: 5/19/08

*	80-39-7	Benzenesulfonamide, N-Ethyl-4-Methyl-Substituted benzenesulfonamide	NE	NE	NE	NE	NE	NR	NR	NR
	Common Name:									
	Concentration	3.00 - 7.00 % by wt								
*	68443-08-3	Amides, from Me Epoxyhydroxyoctadecanoate, Tetraethylenepentamine and Vegetable-oil Fatty Acids Fatty amidoamine	NE	NE	NE	NE	NE	NR	NR	NR
	Common Name:									
	Concentration	30.00 - 60.00 % by wt								

\* = 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.

**Acute Exposure:** Corrosive. Causes skin and eye burns.

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

**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:** 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.

**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:** > 200°F (> 93 °C)  
**Flash Point Method Used:** Estimated

Effective Date: 5/19/08

**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:** Danger!

**Precautions:** 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. Do not breathe vapor or mist. Do not get in eyes, on skin, or on clothing. Avoid tasting or swallowing. Keep container closed when not in use. Use with adequate ventilation. Wash thoroughly after handling. Notice! Overexposure may have effects on developing fetus, lung, kidney, and liver. Possible mutagen.

**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**

<b>Appearance:</b>	Opaque
<b>Color:</b>	Light purple
<b>Odor:</b>	Ammoniacal
<b>Physical State:</b>	Paste
<b>Solubility in Water:</b>	Slight
<b>Vapor Pressure:</b>	Not Determined
<b>Specific Gravity:</b>	0.69 (water = 1)
<b>Boiling Point:</b>	Not Determined
<b>Melting Point:</b>	Not Determined
<b>Evaporation Rate:</b>	Not Determined
<b>Density:</b>	Not Determined
<b>Vapor Density:</b>	Not Determined

Effective Date: 5/19/08

**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**

**Acute Oral Effects (LD50):** Component(s) are slightly toxic, 500 - 5000 mg/kg (rat).

Diethylenetriamine= 1080 - 2330 mg/kg (rat)

Substituted benzenesulfonamide= >1500 mg/kg (rat)

**Acute Dermal Toxicity (LD50):** Component(s) are toxic, 200 - 1000 mg/kg (rabbit).

Diethylenetriamine= 672 - 1240 mg/kg (rabbit)

**Acute Inhalation Exposure Effects:** Severe respiratory irritant.

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

**Skin Irritation:** Corrosive. Causes burns.

**Eye Irritation:** Corrosive. Causes burns.

## **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**

<b>Proper Shipping Name:</b>	Polyamines, liquid, corrosive, N.O.S.
<b>Technical Shipping Name (If n.o.s.):</b>	Tetraethylenepentamine, Diethylene triamine
<b>Hazard Class:</b>	8
<b>ID Number:</b>	UN 2735
<b>Packing Group:</b>	PG II

Effective Date: 5/19/08

<b>Label:</b>	Corrosive
<b>IATA: Non-Bulk</b>	
<b>Proper Shipping Name:</b>	Polyamines, liquid, corrosive, N.O.S.
<b>Technical Shipping Name (If n.o.s.):</b>	Tetraethylenepentamine, Diethylene triamine
<b>Hazard Class:</b>	8
<b>ID Number:</b>	UN 2735
<b>Packing Group:</b>	PG II
<b>Label:</b>	Corrosive
<b>IMDG: Non-Bulk</b>	
<b>Proper Shipping Name:</b>	Polyamines, liquid, corrosive, N.O.S.
<b>Technical Shipping Name (If n.o.s.):</b>	Tetraethylenepentamine, Diethylene triamine
<b>Hazard Class:</b>	8
<b>ID Number:</b>	UN 2735
<b>Packing Group:</b>	PG II
<b>Label:</b>	Corrosive
<b>TDG: Non-Bulk</b>	
<b>Proper Shipping Name:</b>	Polyamines, liquid, corrosive, N.O.S.
<b>Technical Shipping Name (If n.o.s.):</b>	Tetraethylenepentamine, Diethylene triamine
<b>Hazard Class:</b>	8
<b>ID Number:</b>	UN 2735
<b>Packing Group:</b>	PG II
<b>Label:</b>	Corrosive

## 15. REGULATORY INFORMATION

### US Federal Regulations:

**Occupational Safety and Health Act (OSHA):** This product is considered to be a hazardous chemical under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Resource Conservation and Recovery Act (RCRA):** Not a hazardous waste under RCRA (40 CFR 261) but handle with care due to corrosive effect on skin and eyes.

**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: 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.

Effective Date: 5/19/08

**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. D1B D2A D2B E

**State Regulations:**

**California Proposition 65:** The following is required composition information. This product contains the following chemical(s) which are currently listed on the California list of Known Carcinogens and Reproductive Toxins:

Chemical Name: Formaldehyde

Common Name: Formaldehyde

CAS Number: 50-00-0

Percent in Composition: 0.0001 % by wt

Comment: Warning! This chemical is known to the State of California to cause cancer.

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

Chemical Name: Amides, from Me Epoxyhydroxyoctadecanoate, Tetraethylenepentamine and Vegetable-oil Fatty Acids

Common Name: Fatty amidoamine

CAS Number: 68443-08-3

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Phenol, polymer with formaldehyde

Common Name: Phenol Novolac Resin

CAS Number: 9003-35-4

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Benzenesulfonamide, N-Ethyl-2-Methyl-

Common Name: Substituted benzenesulfonamide

CAS Number: 1077-56-1

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Titanium Oxide

Common Name: Titanium dioxide

CAS Number: 13463-67-7

Comment: Hazardous Substance

Chemical Name: Benzenesulfonamide, N-Ethyl-4-Methyl-

Common Name: Substituted benzenesulfonamide

CAS Number: 80-39-7

Comment: Not on Pennsylvania Hazardous Substance List

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: Phenol, 4,4'-(1-methylethylidene)bis-

Common Name: Bisphenol A

CAS Number: 80-05-7

Effective Date: 5/19/08

Comment: Environmental Hazardous Substance

Chemical Name: Silicon dioxide, amorphous

CAS Number: 112945-52-5

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: 1,2-Ethanediamine, N-(2-aminoethyl)-

Common Name: Diethylenetriamine

CAS Number: 111-40-0

Comment: Hazardous Substance

**16. OTHER INFORMATION**

<b>MSDS No:</b>	35405
<b>Approved By:</b>	Dianne Blessing
<b>Title:</b>	EHS Specialist

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