

4917 Dawn Avenue  
East Lansing, MI 48823-5691

8am to 4:30pm Phone: (517) 351-5900  
24-Hour Health/Environmental Emergency Phone: 1-888-354-3323

Effective Date: 10/16/00

Material Safety Data Sheet

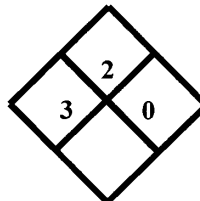
MSDS No: 30603

1. PRODUCT IDENTIFICATION

Trade Name: Hardener HY 8770

MSDS Category: Commercial Product

Chemical Family: Amine



NFPA RATING

|                      |    |
|----------------------|----|
| Health               | 3* |
| Flammability         | 2  |
| Reactivity           | 0  |
| Protective Equipment |    |

HMIS RATING

Intended Use or Product Type: Multi-Purpose Epoxy System Hardener.

2. COMPOSITION / INFORMATION ON INGREDIENTS

| O<br>S<br>H<br>A | CAS No.                    | CHEMICAL IDENTITY  | EXPOSURE LIMITS |      |      |      | CARCINOGEN STATUS |      |     |      |
|------------------|----------------------------|--|-----------------|------|------|------|-------------------|------|-----|------|
|                  |                            |  | ACGIH           |      | OSHA |      | MFR.              | IARC | NTP | OSHA |
|                  |                            |  | TWA             | STEL | PEL  | STEL |                   |      |     |      |
| *                | 100-51-6<br>Common Name:   | Benzenemethanol<br>Benzyl Alcohol  | NE              | NE   | NE   | NE   | NE                | NR   | NR  | NR   |
| *                | 102-71-6<br>Common Name:   | Ethanol, 2,2',2"-nitrilotris-<br>Triethanol amine  | 5<br>mg/m3      | NE   | NE   | NE   | NE                | NR   | NR  | NR   |
| *                | 110-85-0<br>Common Name:   | Piperazine<br>Piperazine   | NE              | NE   | NE   | NE   | NE                | NR   | NR  | NR   |
| *                | 112-57-2<br>Common Name:   | 1,2-Ethanediamine, N-(2-aminoethyl)-N'-[2-[(2-aminoethyl)amino]ethyl]-<br>Tetraethylenepentamine | NE              | NE   | NE   | NE   | NE                | NR   | NR  | NR   |
| *                | 1761-71-3                  | METHYLENEDI(CYCLOHEXYL AMINE)  | NE              | NE   | NE   | NE   | NE                | NR   | NR  | NR   |
| *                | 68910-93-0<br>Common Name: | Fatty acids, tall-oil, reaction products with polyethylenepolyamines<br>Aliphatic polyaminoamide | NE              | NE   | NE   | NE   | NE                | NR   | NR  | NR   |
| *                | 80-05-7<br>Common          | Phenol, 4,4'-(1-methylethylidene)bis-<br>Bisphenol A   | NE              | NE   | NE   | NE   | TLV 5<br>mg/m3    | NR   | NR  | NR   |

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|       |  |  |  |  |  |  |  |  |  |
|-------|--|--|--|--|--|--|--|--|--|
| Name: |  |  |  |  |  |  |  |  |  |
|-------|--|--|--|--|--|--|--|--|--|

\* = OSHA Hazardous Ingredient

**3. HAZARDS IDENTIFICATION**

**Emergency Overview:** Combustible. Corrosive - causes eye burns. Causes severe skin irritation and may cause skin burns. Causes irritation if inhaled and can cause allergic skin reaction. Can be harmful if inhaled, if absorbed through skin, or if swallowed. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or mist. Avoid tasting or swallowing. Keep container closed when not in use. Use with adequate ventilation. Wash thoroughly after handling.

**Chronic:** Overexposure may have effects on lung, kidney, liver, nervous system, and brain.

**4. FIRST AID MEASURES**

**Ingestion:** If conscious, give 2 - 4 glasses of water to drink. Do not induce vomiting. Call a physician.

**Skin:** Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes.

**Inhalation:** Remove to fresh air. Call a physician.

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Call a physician.

**Overexposure Effects:** Corrosive - causes eye burns. Causes severe skin irritation and may cause skin burns. Causes irritation if inhaled and can cause allergic skin reaction. Can be harmful if inhaled, if absorbed through skin, or if swallowed. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or mist. Avoid tasting or swallowing. Keep container closed when not in use. Use with adequate ventilation. Wash thoroughly after handling.

**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**

|   |                 |
|---|-----------------|
| <b>Flash Point:</b>                                   | 194°F (90 °C)   |
| <b>Flash Point Method Used:</b>                       | Estimated       |
| <b>Flammable Limits in Air (Lower - % by volume):</b> | Not established |
| <b>Flammable Limits in Air (Upper - % by volume):</b> | Not established |

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

**Fire Fighting Equipment:** Use self-contained breathing apparatus.

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**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:** Combustible. Keep away from heat and flame. Corrosive - causes eye burns. Causes severe skin irritation and may cause skin burns. Causes irritation if inhaled and can cause allergic skin reaction. Can be harmful if inhaled, if absorbed through skin, or if swallowed. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or mist. 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 lung, kidney, liver, nervous system, and brain.

**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>Color:</b>            | Dark Amber           |
| <b>Physical State:</b>   | Liquid               |
| <b>Vapor Pressure:</b>   | Not Determined       |
| <b>Specific Gravity:</b> | 1 - 1.04 (water = 1) |
| <b>Boiling Point:</b>    | Not Determined       |
| <b>Evaporation Rate:</b> | Not Determined       |
| <b>Vapor Density:</b>    | Not Determined       |
| <b>pH:</b>               | Not Determined       |

**Percent Volatile:** Negligible.

## 10. STABILITY AND REACTIVITY

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

**Stability:** Stable.

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**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 Inhalation Exposure Effects:** Respiratory irritant.

**Sensitization:** Possible in susceptible individuals.

**Skin Irritation:** Severe skin irritant.

**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**

**Proper Shipping Name:**

Resin compounds, N.O.I.

**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

##### 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).

**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

Effective Date: 10/16/00

Percent in Composition: 10 % by wt  
Comment:

**TSCA Section 8(b) - Inventory Status:** All chemical(s) comprising this product are either exempt or listed on the TSCA inventory.

**TSCA Section 12(b) - Export Notification:** This product contains the following chemical(s) that are subject to a Section 12(b) export notification:

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

### 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: Benzenemethanol  
Common Name: Benzyl Alcohol  
CAS Number: 100-51-6  
Comment: Hazardous Substance

Chemical Name: METHYLENEDI(CYCLOHEXYLAMINE)  
CAS Number: 1761-71-3  
Comment: Not on Pennsylvania Hazardous Substance List

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: Ethanol, 2,2',2''-nitrilotris-  
Common Name: Triethanol amine  
CAS Number: 102-71-6  
Comment: Hazardous Substance

Chemical Name: Piperazine  
Common Name: Piperazine  
CAS Number: 110-85-0  
Comment: Hazardous Substance

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

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Comment: Hazardous Substance

**16. OTHER INFORMATION**

**MSDS No:** 30603  
**Approved By:** Kenneth L. Payne  
**Title:** E,H&S Manager

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