



Revision Number: 011.0

Issue date: 07/17/2013

**1. PRODUCT AND COMPANY IDENTIFICATION**

|  |   |
|--|---|
| <b>Product name:</b> Hysol 11C EPK HARD  | <b>IDH number:</b> 702166   |
| <b>Product type:</b> Epoxy Hardener  | <b>Item number:</b> 83186_HD3477  |
|  | <b>Region:</b> United States  |
| <b>Company address:</b><br>Henkel Corporation<br>One Henkel Way<br>Rocky Hill, Connecticut 06067 | <b>Contact information:</b><br>Telephone: 860.571.5100<br>MEDICAL EMERGENCY Phone: Poison Control Center<br>1-877-671-4608 (toll free) or 1-303-592-1711<br>TRANSPORT EMERGENCY Phone: CHEMTREC<br>1-800-424-9300 (toll free) or 1-703-527-3887<br>Internet: www.henkelna.com |

**2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

|  |  |
|--|--|
| <b>Physical state:</b> Viscous, Liquid | <b>HEALTH:</b> *3                              |
| <b>Color:</b> Tan                      | <b>FLAMMABILITY:</b> 1                         |
| <b>Odor:</b> Strong, Ammoniacal        | <b>PHYSICAL HAZARD:</b> 0                      |
|  | <b>Personal Protection:</b> See MSDS Section 8 |

**DANGER:** CAUSES EYE AND SKIN BURNS.  
MAY CAUSE ALLERGIC SKIN AND RESPIRATORY REACTION.  
MAY CAUSE RESPIRATORY TRACT IRRITATION.  
MAY BE HARMFUL IF SWALLOWED.

**Relevant routes of exposure:** Skin, Inhalation, Eyes, Ingestion

**Potential Health Effects**

|                      |   |
|----------------------|---|
| <b>Inhalation:</b>   | Allergic respiratory reaction. May cause respiratory tract irritation. May cause irritation to nose and throat. |
| <b>Skin contact:</b> | May cause skin burns. Allergic skin reaction. Rash. Redness.  |
| <b>Eye contact:</b>  | Burns. Severe eye irritation. Redness. Tissue damage.   |
| <b>Ingestion:</b>    | May be harmful if swallowed. May cause burns of mouth and throat if swallowed.                                  |

**Existing conditions aggravated by exposure:** Eye, skin, and respiratory disorders. Skin allergies. Respiratory allergies.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

| Hazardous components  | CAS NUMBER | %       |
|---|------------|---------|
| Bisphenol A, epichlorohydrin polymer, diethylenetriamine adduct | 68610-56-0 | 10 - 30 |
| Talc  | 14807-96-6 | 10 - 30 |
| Quartz (SiO2)   | 14808-60-7 | 10 - 30 |
| Diethylenetriamine  | 111-40-0   | 10 - 30 |
| 4,4'-Isopropylidenediphenol                                     | 80-05-7    | 1 - 5   |

#### 4. FIRST AID MEASURES

|                      |  |
|----------------------|--|
| <b>Inhalation:</b>   | Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.   |
| <b>Skin contact:</b> | Remove contaminated clothing and footwear. Immediately flush skin with plenty of water (using soap, if available). Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse. |
| <b>Eye contact:</b>  | Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.  |
| <b>Ingestion:</b>    | DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.  |

#### 5. FIRE FIGHTING MEASURES

|  |   |
|--|---|
| <b>Flash point:</b>                        | > 101.6 °C (> 214.88 °F)  |
| <b>Autoignition temperature:</b>           | Not available.  |
| <b>Flammable/Explosive limits - lower:</b> | Not available.  |
| <b>Flammable/Explosive limits - upper:</b> | Not available.  |
| <b>Extinguishing media:</b>                | Water spray (fog), foam, dry chemical or carbon dioxide.  |
| <b>Special firefighting procedures:</b>    | Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.  |
| <b>Unusual fire or explosion hazards:</b>  | In case of fire, keep containers cool with water spray. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat. |
| <b>Hazardous combustion products:</b>      | Oxides of carbon. Oxides of nitrogen. Phenolics. Ammonia. Toxic fumes. Irritating vapors.   |

#### 6. ACCIDENTAL RELEASE MEASURES

|   |  |
|---|--|
| <b>Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.</b> |  |
| <b>Environmental precautions:</b>   | Do not allow product to enter sewer or waterways.  |
| <b>Clean-up methods:</b>  | Remove all sources of ignition. Ensure adequate ventilation. Wear appropriate personal protective equipment. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up spilled material and place in a closed container for disposal. |

#### 7. HANDLING AND STORAGE

|                  |  |
|------------------|--|
| <b>Handling:</b> | Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Do not taste or swallow. Use only with adequate ventilation. Keep container closed.                         |
| <b>Storage:</b>  | Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Keep away from heat, spark and flame. Protect from direct sunlight. Store in original container until ready to use. |

**For information on product shelf life contact Henkel Customer Service at (800) 243-4874.**

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

| Hazardous components  | ACGIH TLV   | OSHA PEL   | AIHA WEEL | OTHER  |
|---|---|--|-----------|--------|
| Bisphenol A, epichlorohydrin polymer, diethylenetriamine adduct | None  | None   | None      | None   |
| Talc  | 2 mg/m <sup>3</sup> TWA<br>Respirable fraction.     | 2.4 MPPCF TWA<br>Respirable.<br>0.1 mg/m <sup>3</sup> TWA<br>Respirable.<br>20 MPPCF TWA<br>0.3 mg/m <sup>3</sup> TWA<br>Total dust. | None      | 50 ppm |
| Quartz (SiO <sub>2</sub> )                                      | 0.025 mg/m <sup>3</sup> TWA<br>Respirable fraction. | 2.4 MPPCF TWA<br>Respirable.<br>0.1 mg/m <sup>3</sup> TWA<br>Respirable.<br>0.3 mg/m <sup>3</sup> TWA<br>Total dust.                 | None      | None   |
| Diethylenetriamine  | (SKIN)<br>1 ppm TWA                                 | None   | None      | None   |
| 4,4'-Isopropylidenediphenol                                     | None  | None   | None      | None   |

**Engineering controls:**

Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.

**Respiratory protection:**

Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

**Eye/face protection:**

Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists.

**Skin protection:**

Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact. Butyl rubber gloves.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|   |   |
|---|---|
| <b>Physical state:</b>                          | Viscous, Liquid                                 |
| <b>Color:</b>                                   | Tan   |
| <b>Odor:</b>                                    | Strong, Ammoniacal                              |
| <b>Odor threshold:</b>                          | Not available.                                  |
| <b>pH:</b>                                      | Not applicable                                  |
| <b>Vapor pressure:</b>                          | < 1 mm hg (20 °C (68°F))                        |
| <b>Boiling point/range:</b>                     | 207 °C (404.6 °F) (1,013 hPa)                   |
| <b>Melting point/ range:</b>                    | Not available.                                  |
| <b>Specific gravity:</b>                        | 1.65  |
| <b>Vapor density:</b>                           | 3.5   |
| <b>Flash point:</b>                             | > 101.6 °C (> 214.88 °F)                        |
| <b>Flammable/Explosive limits - lower:</b>      | Not available.                                  |
| <b>Flammable/Explosive limits - upper:</b>      | Not available.                                  |
| <b>Autoignition temperature:</b>                | Not available.                                  |
| <b>Evaporation rate:</b>                        | Not available.                                  |
| <b>Solubility in water:</b>                     | Partially miscible                              |
| <b>Partition coefficient (n-octanol/water):</b> | Not available.                                  |
| <b>VOC content:</b>                             | < 0.1 % (value for resin and hardener together) |

## 10. STABILITY AND REACTIVITY

|  |  |
|--|--|
| <b>Stability:</b>                        | Stable under normal conditions of storage and use.   |
| <b>Hazardous reactions:</b>              | Polymerization is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers.  |
| <b>Hazardous decomposition products:</b> | Oxides of carbon. Oxides of nitrogen. Phenolics. Ammonia. Toxic fumes. Irritating vapors.  |
| <b>Incompatible materials:</b>           | Strong bases. Strong acids. Strong oxidizing agents. Nitrous acid and other nitrosating agents. Copper. Copper alloys. Alcohols. Aldehydes. Ketones.   |
| <b>Conditions to avoid:</b>              | Avoid temperatures above 38°C (100°F). Keep away from heat, ignition sources and incompatible materials. Protect from direct sunlight. Avoid mixing resin (Part A) and curing agent (Part B) unless you plan to use immediately. Failure to observe these precautions may result in excessive heat build-up causing an exotherm. |

## 11. TOXICOLOGICAL INFORMATION

| Hazardous components  | NTP Carcinogen                | IARC Carcinogen | OSHA Carcinogen (Specifically Regulated) |
|---|-------------------------------|-----------------|--|
| Bisphenol A, epichlorohydrin polymer, diethylenetriamine adduct | No                            | No              | No                                       |
| Talc  | No                            | No              | No                                       |
| Quartz (SiO <sub>2</sub> )                                      | Known To Be Human Carcinogen. | Group 1         | No                                       |
| Diethylenetriamine  | No                            | No              | No                                       |
| 4,4'-Isopropylidenediphenol                                     | No                            | No              | No                                       |

| Hazardous components  | Health Effects/Target Organs                            |
|---|---|
| Bisphenol A, epichlorohydrin polymer, diethylenetriamine adduct | No Records  |
| Talc  | Irritant, Lung, Some evidence of carcinogenicity        |
| Quartz (SiO <sub>2</sub> )                                      | Immune system, Lung, Some evidence of carcinogenicity   |
| Diethylenetriamine  | Allergen, Irritant, Eyes                                |
| 4,4'-Isopropylidenediphenol                                     | Allergen, Blood, Irritant, Kidney, Reproductive, Spleen |

## 12. ECOLOGICAL INFORMATION

**Ecological information:** Not available.

## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

**Recommended method of disposal:** Follow all local, state, federal and provincial regulations for disposal.

**Hazardous waste number:** Not a RCRA hazardous waste.

## 14. TRANSPORT INFORMATION

The shipping classifications in this sections are for non-bulk packaging only (unless otherwise specified). Shipping classification may be different for bulk packaging.

### U.S. Department of Transportation Ground (49 CFR)

|                                  |   |
|----------------------------------|---|
| <b>Proper shipping name:</b>     | Diethylenetriamine (Up to 1 L max per inner/primary package when shipped as originally packaged only) |
| <b>Hazard class or division:</b> | 8   |
| <b>Identification number:</b>    | UN 2079   |
| <b>Packing group:</b>            | II  |

**International Air Transportation (ICAO/IATA)**

**Proper shipping name:** Diethylenetriamine (Up to 1 L max per inner/primary package when shipped as originally packaged only)  
**Hazard class or division:** 8  
**Identification number:** UN 2079  
**Packing group:** II

**Water Transportation (IMO/IMDG)**

**Proper shipping name:** DIETHYLENETRIAMINE (Up to 1 L max per inner/primary package when shipped as originally packaged only)  
**Hazard class or division:** 8  
**Identification number:** UN 2079  
**Packing group:** II

**15. REGULATORY INFORMATION****United States Regulatory Information**

**TSCA 8 (b) Inventory Status:** All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.  
**TSCA 12(b) Export Notification:** None above reporting de minimus  
**CERCLA/SARA Section 302 EHS:** None above reporting de minimis  
**CERCLA/SARA Section 311/312:** Immediate Health, Delayed Health  
**CERCLA/SARA 313:** This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). 4,4'-Isopropylidenediphenol (CAS# 80-05-7).  
**California Proposition 65:** This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

**Canada Regulatory Information**

**CEPA DSL/NDL Status:** All components are listed on or are exempt from listing on the Canadian Domestic Substances List.  
**WHMIS hazard class:** D.2.A, D.2.B, E

**16. OTHER INFORMATION**

**This material safety data sheet contains changes from the previous version in sections:** 1,3,4,5,6,7,8,10,14,15

**Prepared by:** Rena Petrides, Regulatory Affairs Specialist

**DISCLAIMER:** The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.