



Revision Number: 003.1

Issue date: 10/24/2016

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** LOCTITE EA 9394 AERO PART B 8OZ  
 known as EA 9394 PART B 8 OZ  
**Product type:** Epoxy Hardener/Adhesive for the  
 Aerospace Industry  
**Restriction of Use:** None identified  
**Company address:**  
 Henkel Corporation  
 One Henkel Way  
 Rocky Hill, Connecticut 06067

**IDH number:** 937060  
**Item number:** AB9277014  
**Region:** United States  
**Contact information:**  
 Telephone: (860) 571-5100  
 MEDICAL EMERGENCY Phone: Poison Control Center  
 1-877-671-4608 (toll free) or 1-303-592-1711  
 TRANSPORT EMERGENCY Phone: CHEMTREC  
 1-800-424-9300 (toll free) or 1-703-527-3887  
 Internet: www.henkelna.com

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**DANGER:** HARMFUL IN CONTACT WITH SKIN.  
 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.  
 MAY CAUSE AN ALLERGIC SKIN REACTION.

| HAZARD CLASS          | HAZARD CATEGORY |
|-----------------------|-----------------|
| ACUTE TOXICITY DERMAL | 4               |
| SKIN CORROSION        | 1C              |
| SERIOUS EYE DAMAGE    | 1               |
| SKIN SENSITIZATION    | 1               |

### PICTOGRAM(S)



### Precautionary Statements

**Prevention:** Do not breathe dust or fumes. Wash affected area thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, clothing, eye and face protection.

**Response:** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse.

**Storage:** Store locked up.

**Disposal:** Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

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### 3. COMPOSITION / INFORMATION ON INGREDIENTS

| Hazardous Component(s)                     | CAS Number  | Percentage* |
|--|-------------|-------------|
| Tetraethylene pentamine                    | 112-57-2    | 40 - 50     |
| N,N'-Bis(3-aminopropyl)piperazine          | 7209-38-3   | 30 - 40     |
| Silica, amorphous, fumed, crystal-free     | 112945-52-5 | 5 - 10      |
| 3,6,9,12-tetraazatetradecamethylenediamine | 4067-16-7   | 5 - 10      |
| Triethylenetetramine                       | 112-24-3    | 1 - 5       |
| Carbon black                               | 1333-86-4   | 0.1 - 1     |

\* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

### 4. FIRST AID MEASURES

|                            |  |
|----------------------------|--|
| <b>Inhalation:</b>         | If inhaled, immediately remove the affected person to fresh air. If symptoms develop and persist, get medical attention.                                 |
| <b>Skin contact:</b>       | Remove contaminated clothing and footwear. Immediately wash skin thoroughly with soap and water. If symptoms develop and persist, get medical attention. |
| <b>Eye contact:</b>        | In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.                           |
| <b>Ingestion:</b>          | Get immediate medical attention. Do not induce vomiting. Never give anything by mouth to a victim who is unconscious or is having convulsions.           |
| <b>Symptoms:</b>           | See Section 11.  |
| <b>Notes to physician:</b> | Treat symptomatically and supportively.  |

### 5. FIRE FIGHTING MEASURES

|   |   |
|---|---|
| <b>Extinguishing media:</b>               | Water spray (fog), foam, dry chemical or carbon dioxide.  |
| <b>Special firefighting procedures:</b>   | Wear full protective clothing. Wear self-contained breathing apparatus.   |
| <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>     | Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Oxides of nitrogen.              |

### 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

|                                   |   |
|-----------------------------------|---|
| <b>Environmental precautions:</b> | Prevent further leakage or spillage if safe to do so. Wear appropriate protective equipment and clothing during clean-up. Do not allow product to enter sewer or waterways. |
| <b>Clean-up methods:</b>          | Scrape up spilled material and place in a closed container for disposal. Dispose of according to Federal, State and local governmental regulations.                         |

## 7. HANDLING AND STORAGE

### Handling:

For the Part A plus Part B adhesive mixture, follow curing schedule as recommended in product literature. Do not heat Part B at temperatures greater than 100 °C (212 °F). This material may self-react at higher temperatures and cause an exotherm. The exotherm has the potential for release of excessive energy and toxic gasses. Empty containers retain product residue, so obey hazard warnings and handle empty containers as if they were full. Do not cut, grind, weld, or drill on or near this container.

### Storage:

Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

## 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 Component(s)                     | ACGIH TLV  | OSHA PEL                                  | AIHA WEEL   | OTHER |
|--|--|---|---|-------|
| Tetraethylene pentamine                    | None   | None                                      | (SKIN) Aerosol.<br>1 ppm (5 mg/m <sup>3</sup> )<br>TWA Aerosol. (Skin sensitizer) | None  |
| N,N'-Bis(3-aminopropyl)piperazine          | None   | None                                      | None  | None  |
| Silica, amorphous, fumed, crystal-free     | 10 mg/m <sup>3</sup> TWA<br>Inhalable dust.<br>3 mg/m <sup>3</sup> TWA<br>Respirable fraction. | 20 MPPCF TWA<br>0.8 mg/m <sup>3</sup> TWA | None  | None  |
| 3,6,9,12-tetraazatetradecamethylenediamine | None   | None                                      | None  | None  |
| Triethylenetetramine                       | None   | None                                      | 1 ppm (6 mg/m <sup>3</sup> )<br>TWA<br>(SKIN)                                     | None  |
| Carbon black                               | 3 mg/m <sup>3</sup> TWA<br>Inhalable fraction.   | 3.5 mg/m <sup>3</sup> PEL                 | None  | None  |

### Engineering controls:

Ventilation should effectively remove and prevent buildup of any dust generated from the handling of this product.

### Respiratory protection:

When dusts or thermal processing fumes are generated and ventilation is not sufficient to effectively remove them, appropriate NIOSH/MSHA approved respiratory protection must be provided.

### Eye/face protection:

Safety goggles or safety glasses with side shields.

### Skin protection:

Wear impervious gloves for prolonged contact. Use of impervious apron and boots are recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                     |                      |
|-------------------------------------|----------------------|
| Physical state:                     | Solid                |
| Color:                              | Brown                |
| Odor:                               | Amine                |
| Odor threshold:                     | Not available.       |
| pH:                                 | Not applicable       |
| Vapor pressure:                     | < 0.1 mm hg          |
| Boiling point/range:                | 340 °C (644 °F)      |
| Melting point/ range:               | Not determined       |
| Specific gravity:                   | 1.0                  |
| Vapor density:                      | 8.6                  |
| Flash point:                        | > 93 °C (> 199.4 °F) |
| Flammable/Explosive limits - lower: | Not determined       |

|  |   |
|--|---|
| Flammable/Explosive limits - upper:      | Not determined  |
| Autoignition temperature:                | Not determined  |
| Flammability:                            | Not applicable  |
| Evaporation rate:                        | Not determined  |
| Solubility in water:                     | Complete  |
| Partition coefficient (n-octanol/water): | Not determined  |
| VOC content:                             | < 10 g/l per SCAQMD Rule 1124 [EPA Test Method 24/304-91] (estimated) |
| Viscosity:                               | Not available.  |
| Decomposition temperature:               | Not available.  |

## 10. STABILITY AND REACTIVITY

|                                   |   |
|-----------------------------------|---|
| Stability:                        | Stable at normal conditions.  |
| Hazardous reactions:              | May occur.  |
| Hazardous decomposition products: | Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Oxides of nitrogen.  |
| Incompatible materials:           | Keep away from strong oxidizing agents, strong Lewis or mineral acids.  |
| Reactivity:                       | Not available.  |
| Conditions to avoid:              | Avoid mixing resin (Part A) and curing agent (Part B) unless you plan to use immediately. Do not heat mixed adhesive unless curing surfaces to be bonded. Failure to observe these precautions may result in excessive heat build-up causing an exotherm. The exotherm has the potential for release of toxic gasses. |

## 11. TOXICOLOGICAL INFORMATION

|                              |                        |
|------------------------------|------------------------|
| Relevant routes of exposure: | Skin, Inhalation, Eyes |
|------------------------------|------------------------|

#### Potential Health Effects/Symptoms

**Inhalation:** Can cause severe irritation and burns to the respiratory tract. May cause allergic respiratory reaction.

**Skin contact:** This product is severely irritating to the skin and may cause burns. Repeated or prolonged skin contact may result in allergic sensitization. This product may be harmful if it is absorbed through the skin.

**Eye contact:** This product is severely irritating to the eyes and may cause eye burns.

**Ingestion:** Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.

| Hazardous Component(s)                     | LD50s and LC50s   | Immediate and Delayed Health Effects                  |
|--|---|---|
| Tetraethylene pentamine                    | Oral LD50 (Rat) = 3.99 g/kg<br>Oral LD50 (Rat) = 2.1 g/kg<br>Dermal LD50 (Rabbit) = 0.66 g/kg | Irritant, Mutagen, Allergen                           |
| N,N'-Bis(3-aminopropyl)piperazine          | None  | No Records  |
| Silica, amorphous, fumed, crystal-free     | None  | Nuisance dust   |
| 3,6,9,12-tetraazatetradecamethylenediamine | None  | Irritant, Allergen                                    |
| Triethylenetetramine                       | None  | Allergen, Corrosive, Developmental, Irritant, Mutagen |
| Carbon black                               | Oral LD50 (Rat) = > 8,000 mg/kg   | Respiratory, Some evidence of carcinogenicity         |

| Hazardous Component(s)                     | NTP Carcinogen | IARC Carcinogen | OSHA Carcinogen<br>(Specifically Regulated) |
|--|----------------|-----------------|---|
| Tetraethylene pentamine                    | No             | No              | No  |
| N,N'-Bis(3-aminopropyl)piperazine          | No             | No              | No  |
| Silica, amorphous, fumed, crystal-free     | No             | No              | No  |
| 3,6,9,12-tetraazatetradecamethylenediamine | No             | No              | No  |
| Triethylenetetramine                       | No             | No              | No  |
| Carbon black                               | No             | Group 2B        | No  |

#### 12. ECOLOGICAL INFORMATION

Ecological information: Not available.

#### 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

**Recommended method of disposal:** Dispose of according to Federal, State and local governmental regulations.

**Hazardous waste number:** This product, if discarded, may be characterized as a RCRA corrosive waste, D002. Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

#### 14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

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

**Proper shipping name:** Amines, solid, corrosive, n.o.s. (Tetraethylene pentamine, Substituted piperazine)  
**Hazard class or division:** 8  
**Identification number:** UN 3259  
**Packing group:** III

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

Proper shipping name: Amines, solid, corrosive, n.o.s. (Tetraethylene pentamine, Substituted piperazine)  
Hazard class or division: 8  
Identification number: UN 3259  
Packing group: III

**Water Transportation (IMO/MDG)**

Proper shipping name: AMINES, SOLID, CORROSIVE, N.O.S. (Tetraethylene pentamine, Substituted piperazine)  
Hazard class or division: 8  
Identification number: UN 3259  
Packing group: III  
Marine pollutant: Tetraethylene pentamine

**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 minimis  
CERCLA/SARA Section 302 EHS: None above reporting de minimis.  
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health  
CERCLA/SARA Section 313: None above reporting de minimis.  
California Proposition 65: This product contains a chemical known in the State of California to cause cancer.

**Canada Regulatory Information**

CEPA DSL/NDL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

**16. OTHER INFORMATION**

This safety data sheet contains changes from the previous version in sections: New Material Safety Data Sheet format.

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