



Revision Number: 002.1

Issue date: 06/15/2010

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** EA 9377 PART B 8 OZ  
**Product type:** Adhesive for the Aerospace Industry

**IDH number:** 937194  
**Item number:** AB9336014  
**Region:** United States

**Company address:**  
 Henkel Corporation  
 2850 Willow Pass Road  
 Bay Point, California 94565

**Contact information:**  
 Telephone: 925.458.8000 Fax: 925.458.8030  
 Emergency telephone: 860.571.5100  
 Internet: www.henkelna.com

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

		<b>HMIS:</b>	
<b>Physical state:</b>	Paste	<b>HEALTH:</b>	*3
<b>Color:</b>	Black	<b>FLAMMABILITY:</b>	1
<b>Odor:</b>	Ammoniacal	<b>PHYSICAL HAZARD:</b>	1
		<b>Personal Protection:</b>	See MSDS Section 8
<b>DANGER:</b>	CAUSES EYE, SKIN AND RESPIRATORY TRACT BURNS. MAY CAUSE ALLERGIC SKIN AND RESPIRATORY REACTION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN.		

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

### Potential Health Effects

<b>Inhalation:</b>	Inhalation of vapors or mists of the product may be irritating to the respiratory system. May cause allergic respiratory reaction. This product contains an ingredient that may be carcinogenic in its respirable form. However, since the ingredient is completely encapsulated by the epoxy resin, only if the cured product is dry sanded, ground, or abraded, might the carcinogenic material be released.
<b>Skin contact:</b>	May cause skin burns. May cause allergic skin reaction. Repeated or prolonged skin contact may result in allergic sensitization. May be harmful if absorbed through skin.
<b>Eye contact:</b>	Severe eye irritation. Possible burns to eyes. May cause corneal injury. May cause permanent visual impairment.
<b>Ingestion:</b>	May cause burns of mouth and throat if swallowed. May cause an aspiration hazard 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	%
Tetraethylene pentamine	112-57-2	30 - 60
N,N'-Bis(3-aminopropyl)piperazine	7209-38-3	10 - 30
Polyamine	Proprietary	10 - 30
Butadiene-acrylonitrile copolymer	Unknown	5 - 10
Polyamine	Unknown	5 - 10
Silica, amorphous, fumed, crystal-free	112945-52-5	5 - 10
Triethylenetetramine	112-24-3	1 - 5
Carbon black	1333-86-4	0.1 - 1

### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention.
<b>Skin contact:</b>	Remove contaminated clothing and footwear. Immediately flush skin with plenty of water (using soap, if available). If symptoms develop and persist, get medical attention.
<b>Eye contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
<b>Ingestion:</b>	Clean mouth with water and drink afterwards plenty of water. Get immediate medical attention.

### 5. FIRE FIGHTING MEASURES

<b>Flash point:</b>	> 93.33 °C (> 199.99 °F) ; Estimated
<b>Autoignition temperature:</b>	Not determined
<b>Flammable/Explosive limits - lower:</b>	Not determined
<b>Flammable/Explosive limits - upper:</b>	Not determined
<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. Cartridge respirators do not provide adequate protection for fire fighters or exotherm mitigation.
<b>Unusual fire or explosion hazards:</b>	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
<b>Hazardous combustion products:</b>	Oxides of carbon and nitrogen, aldehydes, acids and undetermined organics.

### 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>	Do not allow material to contaminate ground water system.
<b>Clean-up methods:</b>	Wear suitable protective clothing, gloves and eye/face protection. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Do not use sawdust, wood chips or other cellulosic materials to absorb the spill. Scrape up as much material as possible. Store in a partly filled, closed container until disposal.

## 7. HANDLING AND STORAGE

**Handling:**

Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. 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. For the Part A plus Part B adhesive mixture, follow curing schedule as recommended in product literature. 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 in a cool, well ventilated area. Keep container closed.

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 components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Tetraethylene pentamine	None	None	1 ppm (5 mg/m3) TWA Aerosol. (SKIN) Aerosol. (Skin sensitizer)	None
N,N'-Bis(3-aminopropyl)piperazine	None	None	None	None
Polyamine	None	None	None	None
Butadiene-acrylonitrile copolymer	None	None	None	None
Polyamine	None	None	None	None
Silica, amorphous, fumed, crystal-free	10 mg/m3 TWA Inhalable dust. 3 mg/m3 TWA Respirable fraction.	20 MPPCF TWA 0.8 mg/m3 TWA	None	None
Triethylenetetramine	None	None	1 ppm (6 mg/m3) TWA (SKIN)	None
Carbon black	3.5 mg/m3 TWA	3.5 mg/m3 TWA	None	None

**Engineering controls:**

Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination.

**Respiratory protection:**

When workplace hazards warrant the use of a respirator, appropriate respirators must be used, and a program that follows 29 CFR 1910.134 must be followed.

**Eye/face protection:**

Wear appropriate goggles, face shields or other PPE which will be effective under the circumstances if the possibility of contact exists.

**Skin protection:**

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:**

Paste

**Color:**

Black

**Odor:**

Ammoniacal

**Odor threshold:**

Not available

**pH:**

Not applicable

**Vapor pressure:**

< 0.1 mm hg (20 °C (68°F))

**Boiling point/range:**

340 °C (644°F)

**Melting point/ range:**

Not determined

**Specific gravity:**

1.0

**Vapor density:**

8.6

**Flash point:**

> 93.33 °C (> 199.99 °F) ; Estimated

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

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable
<b>Hazardous reactions:</b>	May occur.
<b>Hazardous decomposition products:</b>	Oxides of carbon and nitrogen, aldehydes, acids and undetermined organics.
<b>Incompatible materials:</b>	Keep away from strong oxidizing agents, strong Lewis or mineral acids.
<b>Conditions to avoid:</b>	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. Do not heat mixed adhesive unless curing surfaces to be bonded.

## 11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Tetraethylene pentamine	No	No	No
N,N'-Bis(3-aminopropyl)piperazine	No	No	No
Polyamine	No	No	No
Butadiene-acrylonitrile copolymer	No	No	No
Polyamine	No	No	No
Silica, amorphous, fumed, crystal-free	No	No	No
Triethylenetetramine	No	No	No
Carbon black	No	Group 2B	No

Hazardous components	Health Effects/Target Organs
Tetraethylene pentamine	Irritant, Mutagen, Allergen
N,N'-Bis(3-aminopropyl)piperazine	No Records
Polyamine	No Target Organs
Butadiene-acrylonitrile copolymer	No Target Organs
Polyamine	Irritant, Allergen
Silica, amorphous, fumed, crystal-free	Nuisance dust
Triethylenetetramine	Allergen, Corrosive, Developmental, Irritant, Mutagen
Carbon black	Respiratory, Some evidence of carcinogenicity

## 12. ECOLOGICAL INFORMATION

<b>Ecological information:</b>	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

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

**Proper shipping name:** Amines, liquid, corrosive, n.o.s. (Tetraethylene pentamine, Substituted piperazine)  
**Hazard class or division:** 8  
**Identification number:** UN 2735  
**Packing group:** II

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

**Proper shipping name:** Amines, liquid, corrosive, n.o.s. (Tetraethylene pentamine, Substituted piperazine)  
**Hazard class or division:** 8  
**Identification number:** UN 2735  
**Packing group:** II

#### Water Transportation (IMO/IMDG)

**Proper shipping name:** AMINES, LIQUID, CORROSIVE, N.O.S. (Tetraethylene pentamine, Substituted piperazine)  
**Hazard class or division:** 8  
**Identification number:** UN 2735  
**Packing group:** II  
**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 minimus  
**CERCLA/SARA Section 302 EHS:** None above reporting de minimus  
**CERCLA/SARA Section 311/312:** Immediate Health, Delayed Health  
**CERCLA/SARA 313:** None above reporting de minimus  
**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.  
**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: New Material Safety Data Sheet format.

**Prepared by:** Gary Pierson, Manager, Regulatory Affairs

**DISCLAIMER:** The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation does not assume responsibility for any results obtained by persons over whose methods Henkel Corporation 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 of Henkel Corporation's products. In light of the foregoing, Henkel Corporation specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation further disclaims any liability for consequential or incidental damages of any kind, including lost profits.