



Revision Number: 002.1

Issue date: 03/09/2011

(new new)

**1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Product name:</b>	<b>EA 9320NA PART A QUART</b>	<b>IDH number:</b>	1053928
<b>Product type:</b>	Adhesive for the Aerospace Industry	<b>Item number:</b>	AA9358016
		<b>Region:</b>	United States
<b>Company address:</b>	<b>Contact information:</b>		
Henkel Corporation	Telephone: 925.458.8000	Fax: 925.458.8030	
2850 Willow Pass Road	MEDICAL EMERGENCY Phone: Poison Control Center		
Bay Point, California 94565	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		

Contains one or more components for which a Toxic Substances Control Act (TSCA) Low Volume Exemption (LVE) applies. See Section 15.

**2. HAZARDS IDENTIFICATION**

<u>EMERGENCY OVERVIEW</u>	
<b>Physical state:</b>	Liquid
<b>Color:</b>	Beige
<b>Odor:</b>	Epoxy
<b>WARNING:</b>	CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION.
	<b>HMIS:</b>
	<b>HEALTH:</b> *2
	<b>FLAMMABILITY:</b> 1
	<b>PHYSICAL HAZARD:</b> 0
	<b>Personal Protection:</b> See MSDS Section 8

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

Potential Health Effects

<b>Inhalation:</b>	This product is irritating to the respiratory system.
<b>Skin contact:</b>	This product is irritating to the skin. This product may cause an allergic skin reaction.
<b>Eye contact:</b>	This product is irritating to the eyes.
<b>Ingestion:</b>	Not expected under normal conditions of use.

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

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	%
Epoxy resin	Proprietary	60 - 100
Epoxy resin	Proprietary	5 - 10
Modified Epoxy Resin	Unknown	5 - 10
Silicon dioxide	7631-86-9	1 - 5
Glass, oxide, chemicals	65997-17-3	1 - 5

#### 4. FIRST AID MEASURES

<b>Inhalation:</b>	If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist.
<b>Skin contact:</b>	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.
<b>Notes to physician:</b>	Treat symptomatically and supportively.

#### 5. FIRE FIGHTING MEASURES

<b>Flash point:</b>	> 200 °F (> 93.33 °C)
<b>Autoignition temperature:</b>	Not applicable
<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 full protective clothing. Wear self-contained breathing apparatus.
<b>Unusual fire or explosion hazards:</b>	May liberate large quantities of dense, foul-smelling smoke which may contain unidentified toxic gasses.
<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>	Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of according to Federal, State and local governmental regulations.

#### 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 cut, grind, weld, or drill on or near this container. Empty containers retain product residue, so obey hazard warnings and handle empty containers as if they were full.
<b>Storage:</b>	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 components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Epoxy resin	None	None	None	None
Epoxy resin	None	None	None	None
Modified Epoxy Resin	None	None	None	None
Silicon dioxide	6 mg/m <sup>3</sup> TWA	20 MPPCF TWA 0.8 mg/m <sup>3</sup> TWA	None	3 mg/m <sup>3</sup> TWA Respirable fraction.
Glass, oxide, chemicals	10 mg/m <sup>3</sup> TWA Inhalable dust. 3 mg/m <sup>3</sup> TWA Respirable fraction.	None	None	None

<b>Engineering controls:</b>	Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination.
<b>Respiratory protection:</b>	If ventilation is not sufficient to effectively prevent buildup of aerosols, mists or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.
<b>Eye/face protection:</b>	Wear chemical goggles; face shield (if splashing is possible).
<b>Skin protection:</b>	Wear impervious gloves for prolonged contact. Use of impervious apron and boots are recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Color:</b>	Beige
<b>Odor:</b>	Epoxy
<b>Odor threshold:</b>	Not available
<b>pH:</b>	Not applicable
<b>Vapor pressure:</b>	Not available
<b>Boiling point/range:</b>	Not available
<b>Melting point/ range:</b>	Not available
<b>Specific gravity:</b>	Not available
<b>Vapor density:</b>	Not available
<b>Flash point:</b>	> 200 °F (> 93.33 °C)
<b>Flammable/Explosive limits - lower:</b>	Not available
<b>Flammable/Explosive limits - upper:</b>	Not available
<b>Autoignition temperature:</b>	Not applicable
<b>Evaporation rate:</b>	Not applicable
<b>Solubility in water:</b>	Not applicable
<b>Partition coefficient (n-octanol/water):</b>	Not available
<b>VOC content:</b>	< 10 g/l per SCAQMD Rule 1124 [EPA Test Method 24/304-91] (estimated)

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable at normal conditions.
<b>Hazardous reactions:</b>	May occur.
<b>Hazardous decomposition products:</b>	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Oxides of nitrogen.
<b>Incompatible materials:</b>	This product may react with strong acids or oxidizing agents.
<b>Conditions to avoid:</b>	Keep away from heat, ignition sources and incompatible materials.

**11. TOXICOLOGICAL INFORMATION**

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Epoxy resin	No	No	No
Epoxy resin	No	No	No
Modified Epoxy Resin	No	No	No
Silicon dioxide	No	No	No
Glass, oxide, chemicals	No	No	No

Hazardous components	Health Effects/Target Organs
Epoxy resin	Allergen, Irritant
Epoxy resin	Allergen, Irritant
Modified Epoxy Resin	No Data
Silicon dioxide	Nuisance dust
Glass, oxide, chemicals	Allergen, Respiratory

**12. ECOLOGICAL INFORMATION**

Ecological information: Toxic to aquatic organisms

**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: Material, if discarded, is not expected to be a characteristic hazardous waste under RCRA.

**14. TRANSPORT INFORMATION****U.S. Department of Transportation Ground (49 CFR)**

Proper shipping name: Not regulated  
Hazard class or division: None  
Identification number: None  
Packing group: None

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

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Bisphenol-A Epichlorhydrin resin, Bisphenol A diglycidyl ether)  
Hazard class or division: 9  
Identification number: UN 3082  
Packing group: III

**Water Transportation (IMO/IMDG)**

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-A Epichlorhydrin resin, Bisphenol A diglycidyl ether)  
Hazard class or division: 9  
Identification number: UN 3082  
Packing group: III  
Marine pollutant: Bisphenol-A Epichlorhydrin resin, Bisphenol A diglycidyl ether  
Exceptions: Classified per IMDG Amendment 34; Effective Jan 1, 2010.

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

TSCA 8 (b) Inventory Status: All components of this product are listed on the U.S. Toxic Substances Control Act (TSCA) inventory or are exempt from listing because a Low Volume Exemption (LVE) has been granted in accordance with 40 CFR 723.50.  
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. 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: One or more components are not listed on, and are not exempt from listing on either the Domestic Substances List or the Non-Domestic Substances List.  
WHMIS hazard class: D.2.B

**16. OTHER INFORMATION**

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

Prepared by: Mark Mau, Regulatory Affairs Specialist

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Revision Number: 001.1

Issue date: 12/17/2010

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** EA 9320NA PART B 8 OZ  
**Product type:** Adhesive for the Aerospace Industry

**IDH number:** 1053929  
**Item number:** AB9358014  
**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  
 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**

**Physical state:** Liquid  
**Color:** Blue  
**Odor:** Ammoniacal

**HMIS:**  
**HEALTH:** \*3  
**FLAMMABILITY:** 1  
**PHYSICAL HAZARD:** 1  
**Personal Protection:** See MSDS Section 8

**DANGER—CORROSIVE!:** 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

**Potential Health Effects**

**Inhalation:** Mists, vapors or liquid may cause severe irritation or burns. May cause allergic respiratory reaction.  
**Skin contact:** This product is severely irritating to the skin and may cause burns. This product may cause an allergic skin reaction. May be harmful if absorbed through skin.  
**Eye contact:** This product is severely irritating to the eyes and may cause irreversible damage including burns and blindness.  
**Ingestion:** Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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

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	%
3,3'-Oxybis(ethyleneoxy)bis(propylamine)	4246-51-9	30 - 60
Triethylenetetramine	112-24-3	30 - 60
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	1 - 5

**4. FIRST AID MEASURES**

**Inhalation:**

If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist.

<b>Skin contact:</b>	Immediately wash skin thoroughly with soap and water. If symptoms develop and persist, get medical attention.
<b>Eye contact:</b>	Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.
<b>Ingestion:</b>	Get immediate medical attention. Do not induce vomiting.
<b>Notes to physician:</b>	Treat symptomatically and supportively.

## 5. FIRE FIGHTING MEASURES

<b>Flash point:</b>	> 93 °C (> 199.4 °F)
<b>Autoignition temperature:</b>	Not applicable
<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>	May liberate large quantities of dense, foul-smelling smoke which may contain unidentified toxic gasses.
<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

<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>	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>	Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of according to Federal, State and local governmental regulations.

## 7. HANDLING AND STORAGE

<b>Handling:</b>	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.
<b>Storage:</b>	For safe storage, store between 0 °C (32°F) and 25 °C (77°F) 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 components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
3,3'-Oxybis(ethyleneoxy)bis(propylamine)	None	None	None	None
Triethylenetetramine	None	None	1 ppm (6 mg/m <sup>3</sup> ) TWA (SKIN)	None
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	None	None	None	None

<b>Engineering controls:</b>	Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.
<b>Respiratory protection:</b>	If ventilation is not sufficient to effectively prevent buildup of aerosols, mists or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.
<b>Eye/face protection:</b>	Wear chemical goggles; face shield (if splashing is possible).
<b>Skin protection:</b>	Wear impervious gloves for prolonged contact. Use of impervious apron and boots are recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Color:</b>	Blue
<b>Odor:</b>	Ammoniacal
<b>Odor threshold:</b>	Not available
<b>pH:</b>	Not determined
<b>Vapor pressure:</b>	Not determined
<b>Boiling point/range:</b>	Not determined
<b>Melting point/ range:</b>	Not determined
<b>Specific gravity:</b>	1.0
<b>Vapor density:</b>	Not applicable
<b>Flash point:</b>	> 93 °C (> 199.4 °F)
<b>Flammable/Explosive limits - lower:</b>	Not determined
<b>Flammable/Explosive limits - upper:</b>	Not determined
<b>Autoignition temperature:</b>	Not applicable
<b>Evaporation rate:</b>	Not determined
<b>Solubility in water:</b>	Negligible
<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>VOC content:</b>	< 10 g/l per SCAQMD Rule 1124 [EPA Test Method 24/304-91] (estimated)

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable at normal conditions.
<b>Hazardous reactions:</b>	May occur.
<b>Hazardous decomposition products:</b>	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Oxides of nitrogen.
<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. Do not heat mixed adhesive 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)
3,3'-Oxybis(ethyleneoxy)bis(propylamine)	No	No	No
Triethylenetetramine	No	No	No
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	No	No	No

Hazardous components	Health Effects/Target Organs
3,3'-Oxybis(ethyleneoxy)bis(propylamine)	Corrosive
Triethylenetetramine	Allergen, Corrosive, Developmental, Irritant, Mutagen
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	Irritant, Allergen

**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.

**14. TRANSPORT INFORMATION****U.S. Department of Transportation Ground (49 CFR)**

Proper shipping name: Amines, liquid, corrosive, n.o.s. (Diethylene glycol di-(3-aminopropyl) ether, Triethylenetetramine)  
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. (Diethylene glycol di-(3-aminopropyl) ether, Triethylenetetramine)  
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. (Diethylene glycol di-(3-aminopropyl) ether, Triethylenetetramine)  
Hazard class or division: 8  
Identification number: UN 2735  
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 minimus  
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health  
CERCLA/SARA 313: None above reporting de minimus

California Proposition 65:

No California Proposition 65 listed chemicals are known to be present.

**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: Mark Mau, Regulatory Affairs Specialist

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