1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Kit Number: AS9362000

Product name: EA 9321 Part A Bulk
Product type: Adhesive for the Aerospace Industry

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

Item No.: AA9362000
Region: United States

Contact Information:
Telephone: 925.458.8000
Fax: 925.458.8030.
Emergency Telephone: 860.571.5100.
Internet www.aerospace.henkel.us

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>%</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epoxy resin</td>
<td>30-60</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Proprietary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum</td>
<td>10-30</td>
<td>10 mg/m³ TWA</td>
<td>15 mg/m³ TWA (total), 5 mg/m³ respirable</td>
<td>None</td>
</tr>
<tr>
<td>7429-90-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epoxy resin</td>
<td>10-30</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Proprietary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epoxy resin</td>
<td>5-10</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Proprietary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silica, amorphous (fumed)</td>
<td>1-5</td>
<td>6 mg/m³ TWA</td>
<td>10 mg/m³ TWA</td>
<td>3 mg/m³ TWA respirable dust</td>
</tr>
<tr>
<td>7631-86-9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HMIS:
- HEALTH: 2
- FLAMMABILITY: 1
- PHYSICAL HAZARD: 1
- Personal Protection: See Section 8

WARNING:
- CAUSES EYE IRRITATION.
- MAY CAUSE ALLERGIC SKIN REACTION.
- MAY CAUSE SKIN IRRITATION.

Relevant routes of exposure: Skin, Eyes, Inhalation

Potential Health Effects

- Inhalation: May cause irritation to nose and throat.
- Skin contact: Brief contact with the uncured adhesive may irritate the skin or cause a rash. Repeated or prolonged skin contact may result in allergic sensitization.
- Eye contact: Contact with eyes will cause irritation.
- Ingestion: Not a relevant route of exposure.

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Product name: EA 9321 Part A Bulk

Revision Date: 04/12/2007
Issue date: 04/12/2007
Existing conditions aggravated by exposure:  
Eye, skin, and respiratory disorders.

See Section 11 for additional toxicological information.

### 4. FIRST AID MEASURES

**Inhalation:**  
Remove to fresh air. If symptoms develop and persist, get medical attention.

**Skin contact:**  
Remove contaminated clothing and shoes. Wash with soap and water. If a person feels unwell or symptoms of skin irritation appear, consult a physician.

**Eye contact:**  
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Ingestion:**  
Do not induce vomiting. Drink water as a precaution. Obtain medical attention.

**Notes to physician:**  
Treat symptomatically and supportively.

### 5. FIRE-FIGHTING MEASURES

**Flash point:**  
Greater than 93°C (200°F)  (estimated)

**Autoignition temperature:**  
Not determined

**Flammable/Explosive limits-lower %:**  
Not determined

**Flammable/Explosive limits-upper %:**  
Not determined

**Extinguishing media:**  
Water spray (fog), foam, dry chemical or carbon dioxide.

**Special fire fighting procedures:**  
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.

**Unusual fire or explosion hazards:**  
May liberate large quantities of dense, foul-smelling smoke which may contain unidentified toxic gasses.

**Hazardous combustion products:**  

### 6. ACCIDENTAL RELEASE MEASURES

**Environmental precautions:**  
Prevent further leakage or spillage if safe to do so. Contain spill. Do not let product enter drains. Do not flush into surface water.

**Clean-up methods:**  
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Store in a closed container until ready for disposal.

### 7. HANDLING AND STORAGE

**Handling:**  
Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. For the Part A plus Part B adhesive mixture, follow curing schedule as recommended in product literature. Do not heat Part A 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.

**Storage:**  
Keep in a cool, well ventilated area. Keep container closed.

**Incompatible products:**  
Keep away from strong oxidizing agents, strong Lewis or mineral acids.

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

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Product name: EA 9321 Part A Bulk
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination below occupational exposure limits.

Respiratory protection: Use NIOSH approved respirator if there is potential to exceed exposure limit(s). Observe OSHA regulations for respiratory use (29 CFR 1910.134).

Skin protection: Use impermeable gloves and protective clothing as necessary to prevent skin contact.

Eye/face protection: Safety glasses Goggles.

See Section 2 for exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical state:</th>
<th>Paste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>Grey</td>
</tr>
<tr>
<td>Odor:</td>
<td>Mild</td>
</tr>
<tr>
<td>Vapor pressure:</td>
<td>Nil</td>
</tr>
<tr>
<td>pH:</td>
<td>Neutral</td>
</tr>
<tr>
<td>Boiling point/range:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Melting point/range:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Specific gravity:</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor density:</td>
<td>Greater than 1</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Solubility in water:</td>
<td>Negligible.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water):</td>
<td>Not determined</td>
</tr>
<tr>
<td>VOC content:</td>
<td>&lt;10 g/l (estimate) per SCAQMD Rule 1124 [EPA Test Method 24/304-91]</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and use.

Hazardous polymerization: May occur.


Incompatability: Strong acids and oxidizing agents. Amines.

Conditions to avoid: To avoid thermal decomposition, do not overheat.

11. TOXICOLOGICAL INFORMATION

Carcinogen Status

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>NTP Carcinogen</th>
<th>IARC Carcinogen</th>
<th>OSHA Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epoxy resin Proprietary</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Aluminum 7429-90-5</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Epoxy resin Proprietary</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Epoxy resin Proprietary</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Silica, amorphous (fumed)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Literature Referenced Target Organ & Other Health Effects

Item No.: AA9362000

Product name: EA 9321 Part A Bulk

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### Hazardous components

<table>
<thead>
<tr>
<th>Substance</th>
<th>Proprietary</th>
<th>Health Effects/Target Organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epoxy resin</td>
<td>Proprietary</td>
<td>Allergen, Irritant, Mutagen</td>
</tr>
<tr>
<td>Aluminum 7429-90-5</td>
<td></td>
<td>Central nervous system, Irritant, Lung</td>
</tr>
<tr>
<td>Epoxy resin Proprietary</td>
<td></td>
<td>Allergen, Irritant</td>
</tr>
<tr>
<td>Epoxy resin Proprietary</td>
<td></td>
<td>Allergen, Irritant</td>
</tr>
<tr>
<td>Silica, amorphous (fumed) 7631-86-9</td>
<td></td>
<td>Nuisance dust</td>
</tr>
</tbody>
</table>

### 12. ECOLOGICAL INFORMATION

**Ecological information:** No specific studies have been conducted by Henkel on the ecotoxicity or environmental fate of this material; however, commonly available data on the material indicate that uncontrolled releases to soil, groundwater, or surface waters could entail acute and/or chronic ecological effects, depending on the quantity and concentration of such releases. Releases of volatile components to the atmosphere are not believed to entail significant ecological consequences provided such releases are within the exposure levels set forth in this document. Accordingly, all appropriate measures should be taken to avoid uncontrolled releases to the environment, and any spills or other uncontrolled releases which may occur should be contained and cleaned up immediately in accordance with Section 6.

### 13. DISPOSAL CONSIDERATIONS

**Information provided is for unused product only.**

**Recommended method of disposal:** Legal disposition of wastes is the responsibility of the owner/generator of the waste. Applicable federal, state and/or local regulations must be followed during treatment, storage, or disposal of waste containing this product.

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

### 14. TRANSPORT INFORMATION

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

- **Proper shipping name:** Not restricted
- **Hazard class or division:** None
- **Identification number:** None
- **Packing group:** None

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

- **Proper shipping name:** Not restricted
- **Hazard class or division:** None
- **Identification number:** None
- **Packing group:** None

**WaterTransportation (IMO/IMDG):**

- **Proper shipping name:** Not restricted
- **Hazard class or division:** None
- **Identification number:** None
- **Packing group:** None
- **Marine pollutant:** Not applicable

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Item No. : AA9362000  
Product name: EA 9321 Part A Bulk
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 5 (a) (2) SNUR: None.
TSCA 12 (b) Export Notification: None.

CERCLA/SARA Section 302 EHS: None.
CERCLA/SARA Section 311/312: Immediate Health Hazard, Delayed Health Hazard
CERCLA/SARA 313: Aluminum (CAS# 7429-90-5) (dust and fumes only).

California Proposition 65: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the 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: First issue.

Prepared by: C.J. Michaels, Manager, Regulatory Affairs
For Safety and Regulatory Information contact:
Product Safety and Regulatory Affairs,
Rocky Hill, CT.
860-571-5204

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