1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<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>Amine adduct</td>
<td>30-60</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>10-30</td>
<td>10 mg/m³ TWA particulate matter containing no asbestos and &lt;1% crystalline silica</td>
<td>15 mg/m³ TWA total dust</td>
<td>None</td>
</tr>
<tr>
<td>Diethylenetriamine</td>
<td>5-10</td>
<td>1 ppm TWA (skin)</td>
<td>None</td>
<td>None</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>Triethylenetetramine</td>
<td>1-5</td>
<td>None</td>
<td>None</td>
<td>1 ppm, skin TWA, (WEEL)</td>
</tr>
</tbody>
</table>

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>Amine adduct</td>
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<td>None</td>
<td>None</td>
<td>None</td>
</tr>
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</tr>
<tr>
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<td>5-10</td>
<td>1 ppm TWA (skin)</td>
<td>None</td>
<td>None</td>
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<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>Triethylenetetramine</td>
<td>1-5</td>
<td>None</td>
<td>None</td>
<td>1 ppm, skin TWA, (WEEL)</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**

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

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

**Potential Health Effects:**
- **Inhalation:** May cause respiratory tract irritation.
- **Skin contact:** May cause skin burns. Repeated or prolonged skin contact may result in allergic sensitization. May be harmful if absorbed through skin.
- **Eye contact:** Severe eye irritation.
- **Ingestion:** Not expected under normal conditions of use. May cause an aspiration hazard if swallowed.
4. FIRST AID MEASURES

**Inhalation:**
Remove to fresh air. If discomfort persists seek medical attention.

**Skin contact:**
Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Eye contact:**
Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

**Ingestion:**
Drink water as a precaution. Get medical attention immediately.

**Notes to physician:**
Aspiration may cause pulmonary edema or aspiration pneumonia.

5. FIRE-FIGHTING MEASURES

**Flash point:**
Greater than 93ºC (200ºF) (estimated)

**Autoignition temperature:**
Not available

**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:**
Oxides of carbon and nitrogen, aldehydes, acids and undetermined organics.

6. ACCIDENTAL RELEASE MEASURES

**Environmental precautions:**
No information available

**Clean-up methods:**
Wear protective clothing, gloves and safety glasses. Scrape up as much material as possible. Store in a closed container until ready for disposal.

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 ºC (212 ºF). 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. 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.

**Storage:**
Refrigerated storage is recommended to maintain product quality. For safe storage, store at or below 25ºC (77ºF). 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.

Item No.: AB9362000  
Product name: EA9321 Part B 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: 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.

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

Eye/face protection: Wear appropriate goggles, face shields or other PPE which will be effective under the circumstances if the possibility of contact exists. A program meeting 29 CFR 1910.133 requirements must be followed when PPE is necessary.

See Section 2 for exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid / Paste
Color: Amber
Odor: Ammoniacal
Vapor pressure: Less than 1 mm Hg at 20°C (68°F)
PH: Not determined
Boiling point/range: Not determined
Melting point/range: Not determined
Specific gravity: 1.22
Vapor density: Not determined
Evaporation rate: Not determined
Solubility in water: Negligible.
Partition coefficient (n-octanol/water): Not determined
VOC content: <10 g/l (estimate) per SCAQMD Rule 1124 [EPA Test Method 24/304-91]

10. STABILITY AND REACTIVITY

Stability: Stable.

Hazardous polymerization: May occur.

Hazardous decomposition products: Oxides of carbon and nitrogen, aldehydes, acids and undetermined organics.

Incompatability: Keep away from strong oxidizing agents, strong Lewis or mineral acids.

Conditions to avoid: Avoid mixing resin (Part A) and curing agent (Part B) in batches greater than 1 pound(s) (.454 kg) unless you plan to use immediately. Do not heat mixed adhesive above 52°C (125°F) 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

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>Amine adduct</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>68082-29-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>1344-28-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diethylene triamine</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>111-40-0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silica, amorphous (fumed)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>7631-86-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triethyleneetetramine</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>112-24-3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Item No.: AB9362000

Product name: EA9321 Part B bulk
### Hazardous components

<table>
<thead>
<tr>
<th>Component</th>
<th>Health Effects/Target Organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amine adduct</td>
<td>No Records</td>
</tr>
<tr>
<td>68082-29-1</td>
<td></td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>Corrosive, Irritant, Nuisance dust</td>
</tr>
<tr>
<td>1344-28-1</td>
<td></td>
</tr>
<tr>
<td>Diethylene triamine</td>
<td>Allergen, Eyes, Irritant</td>
</tr>
<tr>
<td>111-40-0</td>
<td></td>
</tr>
<tr>
<td>Silica, amorphous (fumed)</td>
<td>Nuisance dust</td>
</tr>
<tr>
<td>7631-86-9</td>
<td></td>
</tr>
<tr>
<td>Triethylenetetramine</td>
<td>Allergen, Developmental, Irritant, Mutagen, Corrosive</td>
</tr>
<tr>
<td>112-24-3</td>
<td></td>
</tr>
</tbody>
</table>

### 12. ECOLOGICAL INFORMATION

Ecological information: Not available

### 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:** Amines, solid, corrosive, n.o.s. (Diethylenetriamine / Triethylenetetramine)
- **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. (Diethylenetriamine / Triethylenetetramine)
- **Hazard class or division:** 8
- **Identification number:** UN 3259
- **Packing group:** III

Water Transportation (IMO/IMDG):

- **Proper shipping name:** AMINES, SOLID, CORROSIVE, N.O.S. (Diethylenetriamine / Triethylenetetramine)
- **Hazard class or division:** 8
- **Identification number:** UN 3259
- **Packing group:** III
- **Marine pollutant:** None
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.

CERCLA/SARA Section 302 EHS: None above reporting de minimus.

CERCLA/SARA Section 311/312: Immediate Health Hazard, Delayed Health Hazard

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/NDSL Status: All components are listed on or are exempt from listing on the Domestic Substances List.

WHMIS hazard class: D.2.B, E

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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