1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: Hysol E-214HP Epoxy Adhesive Grey
Item No.: 29340 / IDH No. 234001

Product Use: Adhesive
Region: Canada

Company address:
Henkel Canada Corporation
2225 Meadowpine Boulevard
Mississauga, Ontario L5N 7P2

Contact Information:
Telephone: (905) 814-6511
Emergency telephone: (905) 814-6511
Internet: www.henkelna.com

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>Epoxy resin</td>
<td>10-30</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Elastomeric polymer</td>
<td>10-30</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Aliphatic Bis Urea</td>
<td>1-5</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Guanidine derivative</td>
<td>1-5</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Treated fumed silica</td>
<td>1-5</td>
<td>10mg/m³ Inhalable fraction, 3mg/m³ Respirable fraction, 5mg/m³ Respirable dust, 15mg/m³ Total dust</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

Physical state: Paste
Color: Light grey
Odor: Faint Epoxy
WHMIS hazard class: D.2.B, F

WARNING: MAY CAUSE ALLERGIC SKIN REACTION.
MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

Potential Health Effects

Inhalation:
This material does not normally present an inhalation hazard, however, in applications where vapors (caused by high temperatures) or mists (caused by mixing) are created, breathing may cause respiratory tract irritation.

Skin contact:
May cause skin irritation with discomfort or rash. May cause allergic skin reaction.

Eye contact:
Non-irritating.

Ingestion:
Not a relevant route of exposure. Do not taste or swallow.

Existing conditions aggravated by exposure:
Skin disorders. Skin allergies.

Relevant routes of exposure:
Eye contact, Skin contact, Inhalation, Ingestion
See Section 11 for additional toxicological information.

### 4. FIRST AID MEASURES

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

**Skin contact:**
Remove contaminated clothing and shoes. After contact with skin, wash immediately with plenty of water. Wash clothing before reuse. Get medical attention if symptoms develop and persist.

**Eye contact:**
Immediately flush eyes with plenty of water for at least 15 minutes. If eye irritation persists, consult a specialist.

**Ingestion:**
Do not induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention.

### 5. FIRE-FIGHTING MEASURES

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

**Autoignition temperature:**
Not available

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

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

**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.

**Unusual fire or explosion hazards:**
In the event of fire, cool tanks with water spray. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.

**Hazardous combustion products:**

**Sensitivity to mechanical impact:**
Not available.

**Sensitivity to static discharge:**
Not available.

### 6. ACCIDENTAL RELEASE MEASURES

**Environmental precautions:**
Prevent product from entering drains or open waters.

**Clean-up methods:**
Scrape up as much material as possible. Store in a closed container until ready for disposal. Flush with water. Prevent product from entering drains.

### 7. HANDLING AND STORAGE

**Handling:**
Keep container closed. Avoid contact with eyes, skin and clothing. Avoid breathing vapor and mist. Wash thoroughly after handling. Product generates significant exothermic temperatures during cure cycle. Not intended for applications that require collected volumes or mass configurations greater than 5 ml.

**Storage:**
Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

**Incompatible products:**
Oxidizing agents. Strong acids or bases. Amines. Avoid contact with water. Do not allow molten material to contact water as this can cause violent eruptions, splatter hot material or ignite flammable material.

For information on product shelf life contact Henkel Canada Customer Service at (905) 814-6511.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering controls:**
General room ventilation is usually adequate.

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Respiratory protection: No personal respiratory protective equipment normally required. Use a NIOSH approved respirator if ventilation is inadequate.

Skin protection: Chemical resistant, impermeable gloves. Published literature, test data and glove and clothing manufacturers indicate protection is provided with Butyl, or EVAL-Laminate materials.

Eye/face protection: Safety goggles or safety glasses with side shields.

See Section 2 for exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Paste</td>
</tr>
<tr>
<td>Color</td>
<td>Light grey</td>
</tr>
<tr>
<td>Odor</td>
<td>Faint, Epoxy</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point/range</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Negligible</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available</td>
</tr>
<tr>
<td>VOC content</td>
<td>&lt;1%; &lt;10 grams/liter (estimated)</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability: Stable.

Hazardous polymerization: Reaction with some curing agents may produce an exothermic reaction which in large masses could cause runaway polymerization.

Hazardous decomposition products: None reasonably foreseeable


Conditions to avoid: Excessive heat. Storage with incompatible materials.

11. TOXICOLOGICAL INFORMATION

Product toxicity data: Not available

Toxicologically synergistic products: Not available.

Refer to the following for Irritancy of Product, Sensitization to Product, Carcinogenicity, Reproductive Toxicity, Teratogenicity, and Mutagenicity.
### Ingredient Toxicity Data & Carcinogen Status

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>LD50s &amp; LC50s</th>
<th>Other LD50s and LC50s</th>
<th>NTP Carcinogen</th>
<th>IARC Carcinogen</th>
<th>OSHA Carcinogen</th>
<th>ACGIH - Carcinogens</th>
</tr>
</thead>
</table>
| Epoxy resin
Proprietary        | None          | None                  | No             | No              | No             | No                |
| Epoxy resin
Proprietary        | Oral LD50 (Rat) = 11400 mg/kg | None                  | No             | No              | No             | No                |
| Elastomeric polymer
Proprietary       | None          | None                  | No             | No              | No             | No                |
| Aliphatic Bis Urea
UNKNOWN         | None          | None                  | No             | No              | No             | No                |
| Guanidine derivative
Proprietary         | Oral LD50 (Mouse) > 10 g/kg | None                  | No             | No              | No             | No                |
| Treated fumed silica
67762-90-7        | None          | None                  | No             | No              | No             | No                |

### Literature Referenced Target Organ & Other Health Effects

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>Health Effects/Target Organs</th>
</tr>
</thead>
</table>
| Epoxy resin
Proprietary        | Allergen, Irritant           |
| Epoxy resin
Proprietary        | Allergen, Irritant           |
| Elastomeric polymer
Proprietary       | No Target Organs             |
| Aliphatic Bis Urea
UNKNOWN         | No data                      |
| Guanidine derivative
Proprietary         | Allergen, Central nervous system, Eyes, Irritant |
| Treated fumed silica
67762-90-7        | Irritant                     |

### 12. ECOLOGICAL INFORMATION

Ecological information: Not known

### 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Canadian and local regulations.

### 14. TRANSPORT INFORMATION

The shipping classifications in this section are for non-bulk packaging only (unless otherwise specified). Shipping classification may be different for bulk packaging.

**Canada Transportation of Dangerous Goods - Ground:**
- Proper shipping name: Self-heating liquid, organic, n.o.s. (Amino compound)
- Hazard class or division: 4.2
- Identification number: UN 3183
- Packing group: II

**International Air Transportation (ICAO/IATA):**
- Proper shipping name: Self-heating liquid, organic, n.o.s. (Amino compound)
- Hazard class or division: 4.2

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Product name: Hysol E-214HP Epoxy Adhesive Grey
Identification number: UN3183
Packing group: II

WaterTransportation (IMO/IMDG):
Proper shipping name: Self-heating liquid, organic, n.o.s. (Amino compound)
Hazard class or division: 4.2
Identification number: UN3183
Packing group: II
Marine pollutant: None

15. REGULATORY INFORMATION

Canada Regulatory Information

CEPA DSL/NDSL Status: Contains one or more components listed on the Non-Domestic Substances list.

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.

16. OTHER INFORMATION

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

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Product Regulations.

Prepared by: Regulatory Affairs

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