1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: HYSOL EA 9346.5
Product type: Adhesive for the Aerospace Industry
Company address: Henkel Corporation
2850 Willow Pass Road
Bay Point, California 94565

Item No.: AO9203000
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>Epichlorohydrin-4,4'-isopropylidene diphenol resin</td>
<td>60-100</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>80-05-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4,4`-Isopropylidenediphenol</td>
<td>5-10</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>80-05-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treated fumed silica</td>
<td>1-5</td>
<td>10mg/m³ Inhalable fraction, 3mg/m³ Respirable fraction, TWA</td>
<td>5mg/m³ Respirable dust, 15mg/m³ Total dust</td>
<td>None</td>
</tr>
<tr>
<td>67762-90-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HMIS:

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

CAUTION: MAY CAUSE EYE AND SKIN IRRITATION.

Relevant routes of exposure: Skin contact, Eye contact

Potential Health Effects:

- **Inhalation:** May cause respiratory tract irritation.
- **Skin contact:** Brief contact with the uncured adhesive may irritate the skin or cause a rash. Repeated contact may cause skin sensitization.
- **Eye contact:** Contact with eyes will cause irritation.
- **Ingestion:** Not expected under normal conditions of use.

Existing conditions aggravated by exposure:

Determining whether product ingredients will aggravate a pre-existing medical condition requires case-by-case consideration of the exposed workers’ medical condition and the nature of the exposures expected to occur in the specific workplace where the worker will be employed.

See Section 11 for additional toxicological information.

Revision Date: 09/29/2005
Issue Date: 09/29/2005
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: Drink water as a precaution. Get medical attention if symptoms develop and persist.

Notes to physician: Treat symptomatically and supportively.

5. FIRE-FIGHTING MEASURES

Flash point: Decomposes before flashing.

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

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions: No information available

Clean-up methods: Scrape up as much material as possible. Store in a closed container until ready for disposal.

7. HANDLING AND STORAGE

Handling: 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. This product may be stored at -18°C (0°F) for up to 12 months.

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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Work should be done in an adequately ventilated area (i.e., ventilation sufficient to maintain concentrations below one half of the PEL and other relevant standards). 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.

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

Item No.: AO9203000 Product name: HYSOL EA 9346.5
Eye/face protection: Wear appropriate goggles, face shields or other PPE which will be effective under the circumstances if the possibility of contact exists.

See Section 2 for exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state: Paste
- Color: Blue
- Odor: Slight
- Vapor pressure: Nil
- pH: Not applicable
- Boiling point/range: Not available
- Melting point/range: Not available
- Specific gravity: 1.2
- Vapor density: >1 (air equals 1)
- Evaporation rate: Not available
- Solubility in water: Negligible.
- Partition coefficient (n-octanol/water): Not available
- 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.
- Incompatibility: Keep away from strong oxidizing agents, strong Lewis or mineral acids.
- Conditions to avoid: Do not heat over 82 ºC (180 º F) or in quantities greater than .225 grams (.5 pounds). Excessive temperature or radiation may result in excessive heat build-up causing an exotherm. The exotherm has the potential for release of toxic gasses.

11. TOXICOLOGICAL INFORMATION

- Product toxicity data: Loctite is not aware of any toxicity data on the specific mixture of chemical components contained in this product.

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>Epichlorohydin-4,4'-isopropylidene diphenol resin 25068-38-6</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>4,4'-Isopropylidenediphenol 80-05-7</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Treated fumed silica 67762-90-7</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Literature Referenced Target Organ & Other Health Effects

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>Health Effects/Target Organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epichlorohydin-4,4'-isopropylidene diphenol resin 25068-38-6</td>
<td>Allergen, Irritant</td>
</tr>
<tr>
<td>4,4'-Isopropylidenediphenol 80-05-7</td>
<td>Allergen, Blood, Irritant, Kidney, Spleen, Reproductive</td>
</tr>
<tr>
<td>Treated fumed silica 67762-90-7</td>
<td>Irritant</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Item No.: AO9203000  Product name: HYSOL EA 9346.5
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. Postal System: This material is allowed to be sent through the U.S. Postal system.

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 available
- Hazard class or division: Not available
- Identification number: Not available
- Packing group: Not available

WaterTransportation (IMO/IMDG):
- Proper shipping name: Not restricted
- Hazard class or division: None
- Identification number: None
- Packing group: None
- Marine pollutant: Not applicable

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.
CERCLA/SARA Section 311/312: None.
CERCLA/SARA 313: None.
California Proposition 65: No California Proposition 65 listed chemicals are known to be present.

Canada Regulatory Information

CEPA DSL/NDSL Status: Not fully investigated.
WHMIS hazard class: D.2.B
16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: 14

Prepared by: Environment, Health & Safety Department - Bay Point, CA
For Safety and Regulatory Information contact:
Product Safety and Regulatory Affairs,
Rocky Hill, CT.
860-571-5204

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