1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Fixmaster® Metal Magic Steel(TM) Epoxy
Product type: Epoxy stick
Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

ID number: 209681
Item number: 98853
Region: United States

Contact information:
Telephone: 860.571.5100
Emergency telephone: 860.571.5100
Emergency telephone: 860.571.5100
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state: Putty
Color: Metallic, Black
Odor: Mercaptan, Sulfur

HEALTH:
*1 FLAMMABILITY:
1 PHYSICAL HAZARD: 0

Personal Protection: See MSDS Section 8

WARNING: MAY CAUSE ALLERGIC SKIN REACTION.
MAY CAUSE EYE AND SKIN IRRITATION.

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

Potential Health Effects

Inhalation: Contains crystalline silica (quartz), which is classified as a possible carcinogen. However, the crystalline silica present in this product is encapsulated in the liquid and will only be liberated if the product is sanded or abraded, and even then what is liberated will not be pure crystalline silica. Appropriate precautions, however, should be taken if the product is sanded or abraded to prevent personnel from breathing the dust.

Skin contact: Causes skin irritation. May cause allergic skin reaction.
Eye contact: Contact with eyes will cause irritation.
Ingestion: May cause gastrointestinal tract irritation if swallowed.

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

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

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>CAS NUMBER</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talc</td>
<td>14807-86-6</td>
<td>30 - 60</td>
</tr>
<tr>
<td>Iron</td>
<td>7439-89-6</td>
<td>10 - 30</td>
</tr>
<tr>
<td>Epichlorohydrin-4,4'-isopropylidene diphenol resin</td>
<td>25068-38-6</td>
<td>10 - 30</td>
</tr>
<tr>
<td>Glass, oxide, chemicals</td>
<td>65997-17-3</td>
<td>10 - 30</td>
</tr>
<tr>
<td>Polyether polymercaptan</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>Quartz (SiO2)</td>
<td>14808-60-7</td>
<td>5 - 10</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol</td>
<td>90-72-2</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Treated fumed silica</td>
<td>67782-90-7</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

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4. FIRST AID MEASURES

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

Skin contact: Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention.

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

Ingestion: Do not induce vomiting. Keep individual calm. Never give anything by mouth to an unconscious person. Get medical attention.

5. FIRE FIGHTING MEASURES

Flash point: Not applicable

Autoignition temperature: Not applicable

Flammable/Explosive limits - lower: Not applicable

Flammable/Explosive limits - upper: Not applicable

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

Special firefighting procedures: Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Unusual fire or explosion hazards: None


6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Do not allow product to enter sewer or waterways.

Clean-up methods: Store in a partly filled, closed container until disposal. Scrape up as much material as possible.

7. HANDLING AND STORAGE

Handling: Avoid skin and eye contact. Wash thoroughly after handling. Empty container precaution: Attention! This container can be hazardous when empty. Follow label cautions even after the container is empty since empty containers could retain product residues. Do not re-use empty containers for food, clothing, or products for human or animal consumption, or where skin contact can occur.

Storage: For safe storage, store at or below 32 °C (89.6 °F) Keep in a cool, well ventilated area.

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

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.

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<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talc</td>
<td>2 mg/m³ TWA</td>
<td>20 MPPCF TWA</td>
<td>None</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Respirable fraction.</td>
<td></td>
<td>2.4 MPPCF TWA Respirable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.1 mg/m³ TWA Respirable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.3 mg/m³ TWA Total dust.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iron</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Epichlorohydrin-4,4'-isopropylidene diphenol resin</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Glass, oxide, chemicals</td>
<td>10 mg/m³ TWA</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Inhalable dust.</td>
<td></td>
<td>3 mg/m³ TWA Respirable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polyether polymercaptan</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Quartz (SiO2)</td>
<td>0.025 mg/m³ TWA</td>
<td>2.4 MPPCF TWA Respirable.</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Respirable fraction.</td>
<td></td>
<td>0.1 mg/m³ TWA Respirable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.3 mg/m³ TWA Total dust.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Treated fumed silica</td>
<td>10 mg/m³ TWA</td>
<td>15 mg/m³ TWA Total dust.</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Inhalable dust.</td>
<td></td>
<td>3 mg/m³ TWA Respirable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respirable fraction.</td>
<td></td>
<td>5 mg/m³ TWA Respirable.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Engineering controls:**
Use local exhaust ventilation if heated above 38°C (100°F) to maintain concentrations below occupational exposure limits.

**Respiratory protection:**
Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

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

**Skin protection:**
Chemical resistant, impermeable gloves.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Physical state:**
- **Color:** Putty
- **Odor:** Metallic, Black
- **Odor threshold:** Mercaptan, Sulfur
- **pH:** Not applicable
- **Vapor pressure:** Not applicable
- **Boiling point/range:** Not applicable
- **Melting point/ range:** Not determined
- **Specific gravity:** Not available
- **Vapor density:** Not applicable
- **Flash point:** 2.18
- **Flammable/Explosive limits - lower:** Not applicable
- **Flammable/Explosive limits - upper:** Not applicable
- **Autoignition temperature:** Not applicable
- **Evaporation rate:** Not applicable
- **Solubility in water:** Not miscible
- **Partition coefficient (n-octanol/water):** Not available
- **VOC content:** < 1%

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Product name: Fixmaster® Metal Magic Steel(TM) Epoxy

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10. STABILITY AND REACTIVITY

Stability: Stable
Hazardous reactions: Will not occur.
Incompatible materials: None
Conditions to avoid: None known

11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>NTP Carcinogen</th>
<th>IARC Carcinogen</th>
<th>OSHA Carcinogen (Specifically Regulated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talc</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Iron</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Epichlorohydrin-4,4’-isopropylidene</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>diphenol resin</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Glass, oxide, chemicals</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Polyether polymercaptan</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Quartz (SiO2)</td>
<td>Known carcinogen.</td>
<td>Group 1</td>
<td>No</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Treated fumed silica</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Health Effects/Target Organs

| Hazardous components                          | Eyes, Lung, Some evidence of carcinogenicity |
| Talc                                          | Irritant, Lung, Some evidence of carcinogenicity |
| Iron                                          | Eyes, Lung, Allergen, Irritant |
| Epichlorohydrin-4,4’-isopropylidene diphenol resin | Allergen, Respiratory |
| Glass, oxide, chemicals                       | Immune system, Lung, Some evidence of carcinogenicity |
| Polyether polymercaptan                       | Irritant, Allergen |
| Quartz (SiO2)                                 | Irrittant |
| 2,4,6-Tris(dimethylaminomethyl)phenol           | |
| Treated fumed silica                          | |

12. ECOLOGICAL INFORMATION

Ecological information: Not applicable

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

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

<table>
<thead>
<tr>
<th>Proper shipping name:</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard class or division:</td>
<td>None</td>
</tr>
<tr>
<td>Identification number:</td>
<td>None</td>
</tr>
<tr>
<td>Packing group:</td>
<td>None</td>
</tr>
</tbody>
</table>

International Air Transportation (ICAO/IATA)

<table>
<thead>
<tr>
<th>Proper shipping name:</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard class or division:</td>
<td>None</td>
</tr>
<tr>
<td>Identification number:</td>
<td>None</td>
</tr>
<tr>
<td>Packing group:</td>
<td>None</td>
</tr>
</tbody>
</table>

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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: This product contains a chemical known in the State of California to cause cancer.

Canada Regulatory Information

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


16. OTHER INFORMATION

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

Prepared by: Gary Pierson, Manager, Regulatory Affairs

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