1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: Loctite Plastix Bonder Epoxy - PART A
Item No.: 1363118
Product type: Acrylics
Company address: Henkel Corporation
One Henkel Way
Rocky Hill, CT 06067

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>Methyl methacrylate</td>
<td>30-60</td>
<td>100 ppm STEL</td>
<td>100 ppm TWA</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Polyethylene based rubber</td>
<td>10-30</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Hydroxyalkyl methacrylate</td>
<td>10-30</td>
<td>None</td>
<td>None</td>
<td>3 ppm (ceiling)</td>
</tr>
<tr>
<td>Methacrylic acid</td>
<td>1-5</td>
<td>20 ppm TWA</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Benzenecarboxepoxy acid, 1,1-dimethylethyl</td>
<td>1-5</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Talc</td>
<td>0.1-1</td>
<td>2 mg/m³ TWA</td>
<td>= 20 mppcf TWA</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
<td>0.1-1</td>
<td>10 ppm STEL</td>
<td>10 ppm TWA</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 ppm TWA</td>
<td>25 ppm Ceiling</td>
<td></td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

<table>
<thead>
<tr>
<th>HMIS:</th>
<th>HEALTH:</th>
<th>FLAMMABILITY:</th>
<th>PHYSICAL HAZARD:</th>
<th>Personal Protection:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state:</td>
<td>Paste</td>
<td></td>
<td></td>
<td>See Section 8</td>
</tr>
<tr>
<td>Color:</td>
<td>White Opaque</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor:</td>
<td>Sharp</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

WARNING: FLAMMABLE LIQUID AND VAPOR. CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. MAY BE HARMFUL IF SWALLOWED.

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

Potential Health Effects

Inhalation:
Vapors may cause headaches, nausea, dizziness and respiratory tract irritation.

Skin contact:
Irritating to skin. May cause allergic skin reaction.

Eye contact:
Vapors may irritate eyes. Contact with eyes will cause irritation.

Ingestion:
May be harmful if swallowed. Ingestion causes irritation and effects similar to inhalation.
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:**  
Wash with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if symptoms occur.

**Eye contact:**  
Flush with copious amounts of water, preferably, lukewarm water for at least 15 minutes, holding eyelids open all the time. Get medical attention.

**Ingestion:**  
Do not induce vomiting. Keep individual calm. Obtain medical attention.

### 5. FIRE-FIGHTING MEASURES

**Flash point:**  
14°C (58°F)  
Setaflash Closed cup

**Autoignition temperature:**  
Not available

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

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

**Extinguishing media:**  
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:**  
Vapors may accumulate in low or confined areas, travel considerable distance to source of ignition, and flash back.

**Hazardous combustion products:**  

### 6. ACCIDENTAL RELEASE MEASURES

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

**Clean-up methods:**  
Remove all ignition sources. Ensure adequate ventilation. Soak up with inert absorbent. Store in a closed container until ready for disposal.

### 7. HANDLING AND STORAGE

**Handling:**  
Avoid contact with eyes, skin and clothing. Avoid breathing vapor and mist. Wash thoroughly after handling. During use and until all vapors are gone: Keep area ventilated - do not smoke; extinguish all flames, pilot lights, and heaters; turn off stoves, electrical tools and appliances, and any other sources of ignition. Make sure containers are properly grounded before use or transfer of material.

**Storage:**  
Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. For safe storage, store at or below 32°C (90°F).

**Incompatible products:**  
Refer to Section 10.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering controls:**  
Use local exhaust ventilation to maintain airborne concentrations below established exposure limits.

**Respiratory protection:**  
Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
Skin protection: Chemical resistant, impermeable gloves. Nitrile gloves.
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>White Opaque</td>
</tr>
<tr>
<td>Odor</td>
<td>Sharp</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>28 mmHg @20°C (68° F)</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point/range</td>
<td>Greater than 100°C (212°F)</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.04</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Greater than 1</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Faster than ether (Ether = 1)</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Slight</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available</td>
</tr>
<tr>
<td>VOC content</td>
<td>0.3001%; 2.8646 grams/liter</td>
</tr>
</tbody>
</table>

**10. STABILITY AND REACTIVITY**

Stability: Stable.
Hazardous polymerization: May occur.
Conditions to avoid: See "Handling and Storage" (Section 7) and "Incompatibility" (Section 10). Do not mix in batches greater than 100 grams (0.220 pounds) unless you plan to use immediately.

**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>Methyl methacrylate</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>80-62-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polyethylene based rubber</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Proprietary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydroxyalkyl methacrylate</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>868-77-9</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Methacrylic acid</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>79-41-4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzenecarboperoxid acid, 1,1-</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>dimethylethyl ester</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>814-45-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talc</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>14807-96-6</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Carbon tetrachloride</td>
<td>Suspect Carcinogen</td>
<td>Group 2B</td>
<td>Yes</td>
</tr>
<tr>
<td>56-23-5</td>
<td></td>
<td></td>
<td></td>
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</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>Methyl methacrylate</td>
<td>Allergen, Irritant, Kidney, Liver, Nervous System, Respiratory, Mutagen</td>
</tr>
<tr>
<td>80-62-6</td>
<td></td>
</tr>
<tr>
<td>Polyethylene based rubber</td>
<td>No Target Organs</td>
</tr>
<tr>
<td>Proprietary</td>
<td></td>
</tr>
<tr>
<td>Hydroxyalkyl methacrylate</td>
<td>Allergen, Irritant</td>
</tr>
<tr>
<td>868-77-9</td>
<td></td>
</tr>
<tr>
<td>Methacrylic acid</td>
<td>Allergen, Corrosive, Irritant</td>
</tr>
<tr>
<td>79-41-4</td>
<td></td>
</tr>
<tr>
<td>Benzenecarboperoxoic acid, 1,1-</td>
<td>Central nervous system, Irritant, Mutagen</td>
</tr>
<tr>
<td>dimethyl ester</td>
<td></td>
</tr>
<tr>
<td>814-45-9</td>
<td></td>
</tr>
<tr>
<td>Talc</td>
<td>Some evidence of carcinogenicity, Lung, Irritant</td>
</tr>
<tr>
<td>14807-96-6</td>
<td></td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
<td>Cardiac, Central nervous system, Irritant, Kidney, Liver, Some evidence of carcinogenicity</td>
</tr>
<tr>
<td>56-23-5</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: Dispose of according to Federal, State and local governmental regulations.


14. TRANSPORT INFORMATION

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

- Proper shipping name: Adhesives
- Hazard class or division: 3
- Identification number: UN 1133
- Packing group: II
- Exceptions: Consumer Commodity ORM-D (Not more than 5 L)
- Marine pollutant: None

International Air Transportation (ICAO/IATA):

- Proper shipping name: Adhesives
- Hazard class or division: 3
- Identification number: UN 1133
- Packing group: II
- Exceptions: May Qualify as Consumer Commodity ID8000 (Not more than 500 ml)

WaterTransportation (IMO/IMDG):

- Proper shipping name: Adhesives
- Hazard class or division: 3
- Identification number: UN1133
- Packing group: II
- 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: 4-Methoxyphenol (150-76-5).

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

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

CERCLA/SARA 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Methyl Methacrylate (CAS# 80-62-6) . Carbon tetrachloride (CAS# 56-23-5).

California Proposition 65: This product contains a chemical known to 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 Domestic Substances List.


16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: 9

Prepared by: Regulatory Affairs

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation does not assume responsibility for any results obtained by persons over whose methods Henkel Corporation has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any of Henkel Corporation's products. In light of the foregoing, Henkel Corporation specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation further disclaims any liability for consequential or incidental damages of any kind, including lost profits.
1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: Loctite Plastix Bonder Epoxy- Part B
Item No.: 1363118
Product type: Acrylics
Company address: Henkel Corporation
One Henkel Way
Rocky Hill, CT 06067

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>Methyl methacrylate</td>
<td>60-100</td>
<td>100 ppm STEL</td>
<td>100 ppm TWA</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Nepheline syenite</td>
<td>10-30</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Aldehyde-amine condensate Proprietary</td>
<td>1-5</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**

<table>
<thead>
<tr>
<th>HEALTH:</th>
<th>FLAMMABILITY:</th>
<th>PHYSICAL HAZARD:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2*</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

**WARNING:** FLAMMABLE LIQUID AND VAPOR. CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. MAY BE HARMFUL IF SWALLOWED.

**Relevant routes of exposure:** Inhalation, Skin contact, Eye contact, Ingestion

**Potential Health Effects**

- **Inhalation:** Vapors may cause headaches, nausea, dizziness and respiratory tract irritation.
- **Skin contact:** May cause skin irritation. May cause allergic skin reaction.
- **Eye contact:** May cause irritation.
- **Ingestion:** May be harmful if swallowed.

**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: Wash with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if symptoms occur.

Eye contact: Flush with copious amounts of water, preferably, lukewarm water for at least 15 minutes, holding eyelids open all the time. Get medical attention.

Ingestion: Do not induce vomiting. Keep individual calm. Obtain medical attention.

5. FIRE-FIGHTING MEASURES

Flash point: 14°C (58°F) Setaflash Closed cup

Autoignition temperature: Not available

Flammable/Explosive limits-lower %: Not available

Flammable/Explosive limits-upper %: Not available

Extinguishing media: 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: Vapors may accumulate in low or confined areas, travel considerable distance to source of ignition, and flash back.


6. ACCIDENTAL RELEASE MEASURES

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

Clean-up methods: Remove all ignition sources. Ensure adequate ventilation. Soak up with inert absorbent. Store in a closed container until ready for disposal.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapor and mist. Wash thoroughly after handling. During use and until all vapors are gone: Keep area ventilated - do not smoke; extinguish all flames, pilot lights, and heaters; turn off stoves, electrical tools and appliances, and any other sources of ignition. Make sure containers are properly grounded before use or transfer of material.

Storage: Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. For safe storage, store at or below 32°C (90°F).

Incompatible products: Refer to Section 10.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Use local exhaust ventilation to maintain airborne concentrations below established 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.

See Section 2 for exposure limits.
9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Paste
Color: Tan Opaque
Odor: Strong
Vapor pressure: Not available
pH: Not applicable
Boiling point/range: Greater than 100°C (212°F)
Melting point/range: Not available
Specific gravity: 0.96
Vapor density: Greater than 1
Evaporation rate: Faster than ether (Ether = 1)
Solubility in water: Slight
Partition coefficient (n-octanol/water): Not available
VOC content: 0.3001%; 2.8646 grams/liter

10. STABILITY AND REACTIVITY

Stability: Stable.
Hazardous polymerization: May occur.
Conditions to avoid: See "Handling and Storage" (Section 7) and "Incompatability" (Section 10). Do not mix in batches greater than 100 grams (0.220 pounds) unless you plan to use immediately.

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>Methyl methacrylate</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>80-62-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nepheline syenite</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>37244-96-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aldehyde-amine condensate Proprietary</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>Methyl methacrylate</td>
<td>Allergen, Irritant, Kidney, Liver, Nervous System, Respiratory, Mutagen</td>
</tr>
<tr>
<td>80-62-6</td>
<td></td>
</tr>
<tr>
<td>Nepheline syenite</td>
<td>No Target Organs</td>
</tr>
<tr>
<td>37244-96-5</td>
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</tr>
<tr>
<td>Aldehyde-amine condensate Proprietary</td>
<td>No data</td>
</tr>
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</table>

12. ECOLOGICAL INFORMATION

Ecological information: Not available

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.
Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations.
EPA hazardous waste number: D001: Ignitable.

14. TRANSPORT INFORMATION

Item No.: 1363118
Product name: Loctite Plastix Bonder Epoxy- Part B
**U.S. Department of Transportation Ground (49 CFR):**

- **Proper shipping name:** Adhesives
- **Hazard class or division:** 3
- **Identification number:** UN 1133
- **Packing group:** II
- **Exceptions:** Consumer Commodity ORM-D (Not more than 5 L)
- **Marine pollutant:** None

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

- **Proper shipping name:** Adhesives
- **Hazard class or division:** 3
- **Identification number:** UN 1133
- **Packing group:** II
- **Exceptions:** May Qualify as Consumer Commodity ID8000 (Not more than 500 ml)

**Water Transportation (IMO/IMDG):**

- **Proper shipping name:** Adhesives
- **Hazard class or division:** 3
- **Identification number:** UN1133
- **Packing group:** II
- **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:** 4-Methoxyphenol (150-76-5).
- **CERCLA/SARA Section 302 EHS:** None.
- **CERCLA/SARA Section 311/312:** Immediate Health Hazard, Delayed Health Hazard, Fire
- **CERCLA/SARA 313:** This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Methyl Methacrylate (CAS# 80-62-6).
- **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:** B.2, D.2.B

### 16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: 9

Prepared by: Regulatory Affairs

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