Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M(TM) Scotch-Weld(TM) Hot Melt Adhesive 3798 LM
MANUFACTURER: 3M
DIVISION: Industrial Adhesives and Tapes
ADDRESS: 3M Center
St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 04/27/2006
Supercedes Date: 11/14/2003
Document Group: 09-0564-6

Product Use:
Intended Use: removeable hot melt adhesive

SECTION 2: INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>% by Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAPHTHENIC OIL</td>
<td>64742-52-5</td>
<td>40 - 70</td>
</tr>
<tr>
<td>STYRENE-BUTADIENE POLYMER</td>
<td>9003-55-8</td>
<td>10 - 30</td>
</tr>
<tr>
<td>OXIDIZED POLYETHYLENE</td>
<td>68441-17-8</td>
<td>10 - 30</td>
</tr>
<tr>
<td>HYDROCARBON RESIN</td>
<td>Trade Secret</td>
<td>1 - 3</td>
</tr>
<tr>
<td>PARAFFIN WAX</td>
<td>8002-74-2</td>
<td>1 - 3</td>
</tr>
</tbody>
</table>

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Waxy Solid
Odor, Color, Grade: tan
General Physical Form: Solid
Immediate health, physical, and environmental hazards: Caution! Use only with Polygun LT, Polygun II LT, or Polygun EC applicator with temperature control module 1. May cause thermal burns.

3.2 POTENTIAL HEALTH EFFECTS
Eye Contact:  
Vapors from heated material may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Thermal Burns: Signs/symptoms may include severe pain, redness and swelling, and tissue destruction.

Skin Contact: 
Thermal Burns: Signs/symptoms may include intense pain, redness and swelling, and tissue destruction.

Inhalation:  
Vapors from heated material may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Ingestion:  
Physical Blockage: Signs/symptoms may include cramping, abdominal pain, and constipation.

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Immediately flush eyes with large amounts of water for at least 15 minutes. DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Get immediate medical attention.

Skin Contact: Immediately flush skin with large amounts of cold water for at least 15 minutes. DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Cover affected area with a clean dressing. Get immediate medical attention.

Inhalation: If signs/symptoms develop, remove person to fresh air. If signs/symptoms persist, get medical attention.

If Swallowed: Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autoignition temperature</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;=245 °C</td>
</tr>
<tr>
<td>Flammable Limits - LEL</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flammable Limits - UEL</td>
<td>No Data Available</td>
</tr>
</tbody>
</table>

5.2 EXTINGUISHING MEDIA
Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).
5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Not applicable.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Collect as much of the spilled material as possible.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING
Avoid skin contact with hot material. Keep out of the reach of children. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits. If ventilation is not adequate, use respiratory protection equipment. Caution! Use only with Polygun LT, Polygun II LT, or Polygun EC applicator with temperature control module 1.

7.2 STORAGE
Store away from heat. Store out of direct sunlight.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS
Not applicable. Use in a well-ventilated area.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection
Avoid eye contact.
The following eye protection(s) are recommended: Safety Glasses with side shields.

8.2.2 Skin Protection
Wear appropriate gloves, such as Nomex, when handling this material to prevent thermal burns. Avoid skin contact with hot material.

8.2.3 Respiratory Protection
Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.
8.2.4 Prevention of Swallowing
Wash hands after handling and before eating.

8.3 EXPOSURE GUIDELINES

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Authority</th>
<th>Type</th>
<th>Limit</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAPHTHENIC OIL</td>
<td>CMRG</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td></td>
</tr>
<tr>
<td>NAPHTHENIC OIL</td>
<td>CMRG</td>
<td>STEL</td>
<td>10 mg/m3</td>
<td></td>
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<tr>
<td>PARAFFIN WAX</td>
<td>ACGIH</td>
<td>TWA, as fume</td>
<td>2 mg/m3</td>
<td></td>
</tr>
<tr>
<td>PARAFFIN WAX</td>
<td>OSHA</td>
<td>TWA, as fume</td>
<td>2 mg/m3</td>
<td>Table Z-1A</td>
</tr>
</tbody>
</table>

SOURCE OF EXPOSURE LIMIT DATA:
ACGIH: American Conference of Governmental Industrial Hygienists
CMRG: Chemical Manufacturer Recommended Guideline
OSHA: Occupational Safety and Health Administration
AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- **Specific Physical Form:** Waxy Solid
- **Odor, Color, Grade:** tan
- **General Physical Form:** Solid
- **Autoignition temperature:** No Data Available
- **Flash Point:** >=245 °C
- **Flammable Limits - LEL:** No Data Available
- **Flammable Limits - UEL:** No Data Available
- **Boiling point:** Not Applicable
- **Density:** 0.91 g/ml
- **Vapor Density:** Not Applicable
- **Vapor Pressure:** Not Applicable
- **Specific Gravity:** 0.91 (Not Applicable)
- **pH:** Not Applicable
- **Melting point:** No Data Available
- **Solubility In Water:** No Data Available
- **Evaporation rate:** Not Applicable
- **Volatile Organic Compounds:** No Data Available
- **Percent volatile:** <=0.1 %
- **VOC Less H2O & Exempt Solvents:** No Data Available

SECTION 10: STABILITY AND REACTIVITY

- **Stability:** Stable.
- **Materials and Conditions to Avoid:** None known
- **Hazardous Polymerization:** Hazardous polymerization will not occur.
Hazardous Decomposition or By-Products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>During Combustion</td>
</tr>
</tbody>
</table>

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Reclaim if feasible. If product can't be reclaimed, dispose of waste product in a sanitary landfill. Alternatively, incinerate the waste product in an industrial, commercial, or municipal incinerator. Incinerate in an industrial or commercial facility in the presence of a combustible material.

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

ID Number(s):

Not regulated per U.S. DOT, IATA or IMO.

These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling, or marking requirements. The original 3M package is certified for U.S. ground shipment only. If you are shipping by air or ocean, the package may not meet applicable regulatory requirements.
SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS
Contact 3M for more information.

311/312 Hazard Categories:
Fire Hazard - No  Pressure Hazard - No  Reactivity Hazard - No  Immediate Hazard - Yes  Delayed Hazard - No

STATE REGULATIONS
Contact 3M for more information.

CHEMICAL INVENTORIES
The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS.

Contact 3M for more information.

INTERNATIONAL REGULATIONS
Contact 3M for more information.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification
Health: 1  Flammability: 1  Reactivity: 0  Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Revision Changes:
Section 1: Product name was modified.
Section 16: NFPA hazard classification heading was modified.
Section 16: NFPA hazard classification for health was modified.
Copyright was modified.
Section 8: Exposure guidelines data source legend was modified.
Section 3: Potential effects from ingestion information was modified.
Section 6: Release measures information was modified.
Section 7: Handling information was modified.
Section 8: Engineering controls information was modified.
Section 8: Skin protection phrase was modified.
Section 13: Waste disposal method information was modified.
Section 15: 311/312 hazard categories heading was modified.
Section 15: International regulations information was modified.
Section 15: State regulations information was modified.
Section 15: US federal regulations information was modified.
Section 4: First aid for inhalation - termination of exposure - was modified.
Section 4: First aid for inhalation - medical assistance - was modified.
Section 10: Hazardous polymerization heading was modified.
Section 14: Transportation legal text was modified.
Section 16: NFPA explanation was modified.
Page Heading: Product name was modified.
Section 15: 311/312 Immediate Hazard score was modified.
Section 15: Inventories information was modified.
Section 12: Ecotoxicological information heading was modified.
Section 12: Chemical fate information heading was modified.
Section 8: Exposure guidelines ingredient information was modified.
Section 16: NFPA hazard classification for special hazards was modified.
Section 12: Ecotoxicological phrase was modified.
Section 12: Chemical Fate phrase was modified.
Section 4: First aid for ingestion (swallowing) - decontamination - was added.
Section 4: First aid for ingestion (swallowing) - intervention - was added.
Section 4: First aid for ingestion (swallowing) - medical assistance - was added.
Section 2: Ingredient phrase was added.
Section 4: First aid for ingestion (swallowing) - none - was deleted.

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