Safety Data Sheet

Copyright,2015,3M Company.
All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

### SECTION 1: Identification

1.1. Product identifier

Product Identification Numbers

1.2. Recommended use and restrictions on use

Recommended use
low-melt hot-melt adhesive

1.3. Supplier’s details

MANUFACTURER: 3M
DIVISION: Industrial Adhesives and Tapes Division
ADDRESS: 3M Center, St. Paul, MN 55144-1000, USA
Telephone: 1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

### SECTION 2: Hazard identification

2.1. Hazard classification

2.2. Label elements

Signal word
Not applicable.

Symbols
Not applicable.

Pictograms
Not applicable.

2.3. Hazards not otherwise classified
May cause thermal burns.
SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>% by Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene-Vinyl Acetate Polymer</td>
<td>24937-78-8</td>
<td>60 - 70</td>
</tr>
<tr>
<td>Hydrocarbon Resin</td>
<td>Mixture</td>
<td>30 - 40</td>
</tr>
</tbody>
</table>

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. If you feel unwell, get 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.

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.

If Swallowed:
No need for first aid is anticipated.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

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>

5.3. Special protective actions for fire-fighters
No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures
Ventilate the area with fresh air. Observe precautions from other sections.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid skin contact with hot material. Keep out of reach of children. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities
Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Occupational exposure limits
No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

8.2. Exposure controls

8.2.1. Engineering controls
No engineering controls required.

8.2.2. Personal protective equipment (PPE)

Eye/face protection
Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Full Face Shield
Indirect Vented Goggles

Skin/hand protection
No chemical protective gloves are required.

Respiratory protection
None required.

Thermal hazards
Wear heat insulating gloves when handling hot material to prevent thermal burns.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
General Physical Form: Solid
Specific Physical Form: Waxy Solid
Odor, Color, Grade: translucent, solid adhesive in rods, odorless. (When molten: pungent resinous odor.)

Odor threshold No Data Available
pH Not Applicable
Melting point No Data Available
Boiling Point Not Applicable
Flash Point >=450 °F [Test Method: Cleveland Open Cup] [Details: CONDITIONS: ASTM D-92-72]

Evaporation rate Not Applicable
Flammability (solid, gas) Not Classified
Flammable Limits(LEL) Not Applicable
Flammable Limits(UEL) Not Applicable
Vapor Pressure Nil
Vapor Density Nil
Density 1.01 g/cm³
Specific Gravity 1.01 [Ref Std: WATER=1]
Solubility in Water Nil
Solubility- non-water No Data Available
Partition coefficient: n-octanol/ water No Data Available
Autoignition temperature No Data Available
Decomposition temperature No Data Available
Viscosity Not Applicable
Hazardous Air Pollutants 0 % weight [Test Method: Calculated]
Volatile Organic Compounds 0 g/l [Test Method: calculated SCAQMD rule 443.1]
Percent volatile 0 % weight
VOC Less H2O & Exempt Solvents 0 g/l [Test Method: calculated SCAQMD rule 443.1]
Solids Content 100 %

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
None known.

10.5. Incompatible materials
Strong oxidizing agents

10.6. Hazardous decomposition products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known.</td>
<td></td>
</tr>
</tbody>
</table>

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information
The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

**Inhalation:**
No health effects are expected.

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

**Eye Contact:**
During heating:
Thermal Burns: Signs/symptoms may include severe pain, redness and swelling, and tissue destruction.

**Ingestion:**
No known health effects.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

**Acute Toxicity**

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall product</td>
<td>Ingestion</td>
<td></td>
<td>No data available; calculated ATE &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Ethylene-Vinyl Acetate Polymer</td>
<td>Dermal</td>
<td></td>
<td>LD50 estimated to be &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Ethylene-Vinyl Acetate Polymer</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt; 1,000 mg/kg</td>
</tr>
<tr>
<td>Hydrocarbon Resin</td>
<td>Ingestion</td>
<td></td>
<td>LD50 estimated to be &gt; 5,000 mg/kg</td>
</tr>
</tbody>
</table>

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene-Vinyl Acetate Polymer</td>
<td>Professional judgement</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Hydrocarbon Resin</td>
<td>Professional judgement</td>
<td>No significant irritation</td>
</tr>
</tbody>
</table>

**Serious Eye Damage/Irritation**

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene-Vinyl Acetate Polymer</td>
<td>Professional judgement</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Hydrocarbon Resin</td>
<td>Professional judgement</td>
<td>No significant irritation</td>
</tr>
</tbody>
</table>
Skin Sensitization
For the component/components, either no data are currently available or the data are not sufficient for classification.

Respiratory Sensitization
For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity
For the component/components, either no data are currently available or the data are not sufficient for classification.

Carcinogenicity
For the component/components, either no data are currently available or the data are not sufficient for classification.

Reproductive Toxicity

Reproductive and/or Developmental Effects
For the component/components, either no data are currently available or the data are not sufficient for classification.

Target Organ(s)

Specific Target Organ Toxicity - single exposure
For the component/components, either no data are currently available or the data are not sufficient for classification.

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target Organ(s)</th>
<th>Value</th>
<th>Species</th>
<th>Test Result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene-Vinyl Acetate</td>
<td>Ingestion</td>
<td>liver</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL 4,000 mg/kg/day</td>
<td>90 days</td>
</tr>
</tbody>
</table>

Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information
Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information
Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods
Dispose of contents/container in accordance with the local/regional/national/international regulations.

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in
a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper
destruction may require the use of additional fuel during incineration processes. If no other disposal options are available,
waste product may be placed in a landfill properly designed for industrial waste.

EPA Hazardous Waste Number (RCRA): Not regulated

**SECTION 14: Transport Information**

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*
*transportation classifications are based on product formulation, packaging, 3M policies and 3M 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**

15.1. 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

15.2. State Regulations
Contact 3M for more information.

15.3. Chemical Inventories
The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

15.4. International Regulations
Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**SECTION 16: Other information**

**NFPA Hazard Classification**

- **Health:** 1
- **Flammability:** 1
- **Instability:** 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.

Document Group: 11-3432-9

Version Number: 24.00
DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M.

3M USA SDSs are available at www.3M.com