Safety Data Sheet

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Supercedes Date: 03/10/15

Product identifier
3M™ NVH Dampening Material PN 04274

ID Number(s):
7100004038

Recommended use
Industrial use

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

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

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS), Article Information Sheet (AIS), or Article Information Letter (AIL) for each of these components is included. Please do not separate the component documents from this cover page. The document numbers for components of this product are:

22-2049-9, 22-2043-2

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3M USA SDSs are available at www.3M.com
SECTION 1: Identification

1.1. Product identifier
3M™ NVH Damping   Material PN 04274, 34275 (Part B)

Product Identification Numbers
LB-K100-0150-4, 60-4550-3637-0

1.2. Recommended use and restrictions on use

Recommended use
Automotive

1.3. Supplier’s details
MANUFACTURER: 3M
DIVISION: Automotive Aftermarket
             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

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification
Acute Toxicity (inhalation): Category 4.
Serious Eye Damage/Irritation: Category 1.
Skin Corrosion/Irritation: Category 2.
Skin Sensitizer: Category 1A.

2.2. Label elements
Signal word
Danger
Symbols
Corrosion | Exclamation mark |

Pictograms

Hazard Statements
Causes serious eye damage.
Causes skin irritation.
May cause an allergic skin reaction.
Harmful if inhaled.

Precautionary Statements
General:
Keep out of reach of children.

Prevention:
Avoid breathing dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wear protective gloves and eye/face protection.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.

Response:
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
IF ON SKIN: Wash with plenty of soap and water.
Immediately call a POISON CENTER or doctor/physician.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Call a POISON CENTER or doctor/physician if you feel unwell.

Disposal:
Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Supplemental Information:
Persons previously sensitized to amines may develop a cross-sensitization reaction to certain other amines.

10% of the mixture consists of ingredients of unknown acute oral toxicity.
10% of the mixture consists of ingredients of unknown acute dermal toxicity.
93% of the mixture consists of ingredients of unknown acute inhalation toxicity.

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>Polyether Polyol</td>
<td>9082-00-2</td>
<td>40 -  70 Trade Secret *</td>
</tr>
<tr>
<td>Polypropylene Glycol</td>
<td>25322-69-4</td>
<td>40 -  70 Trade Secret *</td>
</tr>
<tr>
<td>3,5-Bis(methylthio)-2,4-toluenediamine</td>
<td>102093-68-5</td>
<td>5 -  10 Trade Secret *</td>
</tr>
<tr>
<td>1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-</td>
<td>104983-85-9</td>
<td>1 -  5 Trade Secret *</td>
</tr>
</tbody>
</table>
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 wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:
Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

If Swallowed:
Rinse mouth. If you feel unwell, get medical attention.

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>
<tr>
<td>Oxides of Nitrogen</td>
<td>During Combustion</td>
</tr>
</tbody>
</table>

5.3. Special protective actions for fire-fighters
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for
information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
For industrial/occupational use only. Not for consumer sale or use. Keep out of reach of children. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chrome acid etc.)

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>Agency</th>
<th>Limit type</th>
<th>Additional Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polypropylene Glycol</td>
<td>25322-69-4</td>
<td>AIHA</td>
<td>TWA(as aerosol):10 mg/m3</td>
<td></td>
</tr>
<tr>
<td>SILICA, AMORPHOUS</td>
<td>67762-90-7</td>
<td>OSHA</td>
<td>TWA concentration:0.8 mg/m3; TWA:20 millions of particles/cu. ft.</td>
<td></td>
</tr>
</tbody>
</table>

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

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**
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
Gloves made from the following material(s) are recommended:
- Butyl Rubber
- Fluoroelastomer
- Nitrile Rubber

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended:
- Apron – Butyl rubber
- Apron – Nitrile

**Respiratory protection**
An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
- Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

### SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td><strong>Specific Physical Form:</strong></td>
<td>Viscous</td>
</tr>
<tr>
<td>Odor</td>
<td>Urethane</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No Data Available</td>
</tr>
<tr>
<td>pH</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Melting point</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>$\geq 290 , ^\circ F$ [Test Method: Tagliabue Closed Cup]</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>$\leq 1$</td>
</tr>
<tr>
<td>[Ref Std: WATER=1]</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not Applicable</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>
<tr>
<td>Vapor Pressure</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>$\geq 1$</td>
</tr>
<tr>
<td>[Ref Std: AIR=1]</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>1.03 g/ml</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.03</td>
</tr>
<tr>
<td>[Ref Std: WATER=1]</td>
<td></td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Negligible</td>
</tr>
<tr>
<td>Solubility- non-water</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/ water</td>
<td>No Data Available</td>
</tr>
</tbody>
</table>
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 acids
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:
Harmful if inhaled. Respiratory Tract Irritation: Symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.
Skin Contact:
Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain.
Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:
Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Ingestion:
May be harmful if swallowed.
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Additional Information:
Persons previously sensitized to amines may develop a cross-sensitization reaction to certain other amines.

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>Dermal</td>
<td>No data available; calculated ATE &gt;5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Overall product</td>
<td>Inhalation-Dust/Mist(4 hr)</td>
<td>No data available; calculated ATE1 - 5 mg/l</td>
<td></td>
</tr>
<tr>
<td>Overall product</td>
<td>Ingestion</td>
<td>No data available; calculated ATE2,000 - 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Polyether Polyol</td>
<td>Dermal</td>
<td>Rat</td>
<td>LD50 &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Polyether Polyol</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt; 10,000 mg/kg</td>
</tr>
<tr>
<td>Polypropylene Glycol</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD50 &gt; 10,000 mg/kg</td>
</tr>
<tr>
<td>Polypropylene Glycol</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>Dimethyl Siloxane, Reaction Product with Silica</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD50 &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Dimethyl Siloxane, Reaction Product with Silica</td>
<td>Inhalation-Dust/Mist(4 hours)</td>
<td>Rat</td>
<td>LC50 &gt; 0.691 mg/l</td>
</tr>
<tr>
<td>Dimethyl Siloxane, Reaction Product with Silica</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt; 5,110 mg/kg</td>
</tr>
<tr>
<td>Isophorone Diamine</td>
<td>Dermal</td>
<td>Rat</td>
<td>LD50 &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>Isophorone Diamine</td>
<td>Inhalation-Dust/Mist(4 hours)</td>
<td>Rat</td>
<td>LC50 estimated to be 1 - 5 mg/l</td>
</tr>
<tr>
<td>Isophorone Diamine</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 1,030 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>Polypropylene Glycol</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Dimethyl Siloxane, Reaction Product with Silica</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Isophorone Diamine</td>
<td>official classification</td>
<td>Corrosive</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>Polypropylene Glycol</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Dimethyl Siloxane, Reaction Product with Silica</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Isophorone Diamine</td>
<td>Rabbit</td>
<td>Corrosive</td>
</tr>
</tbody>
</table>

### Skin Sensitization

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
</table>
Dimethyl Siloxane, Reaction Product with Silica

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Human and animal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Isophorone Diamine

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isophorone Diamine</td>
<td>In Vitro</td>
<td>Guinea pig</td>
<td>Sensitizing</td>
</tr>
</tbody>
</table>

**Respiratory Sensitization**

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

**Germ Cell Mutagenicity**

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl Siloxane, Reaction Product with</td>
<td>In Vitro</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>Silica</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isophorone Diamine</td>
<td>In Vitro</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>Isophorone Diamine</td>
<td>In vivo</td>
<td>Not mutagenic</td>
</tr>
</tbody>
</table>

**Carcinogenicity**

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl Siloxane, Reaction Product with</td>
<td></td>
<td>Mouse</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>Silica</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
<th>Species</th>
<th>Test Result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl Siloxane, Reaction Product with</td>
<td>Ingestion</td>
<td>Not classified for female reproduction</td>
<td>Rat</td>
<td>NOAEL 509 mg/kg/day</td>
<td>1 generation</td>
</tr>
<tr>
<td>Silica</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimethyl Siloxane, Reaction Product with</td>
<td>Ingestion</td>
<td>Not classified for male reproduction</td>
<td>Rat</td>
<td>NOAEL 497 mg/kg/day</td>
<td>1 generation</td>
</tr>
<tr>
<td>Silica</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimethyl Siloxane, Reaction Product with</td>
<td>Ingestion</td>
<td>Not classified for development</td>
<td>Rat</td>
<td>NOAEL 3,350 mg/kg/day</td>
<td>during organogenesis</td>
</tr>
<tr>
<td>Silica</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isophorone Diamine</td>
<td>Ingestion</td>
<td>Not classified for development</td>
<td>Rat</td>
<td>NOAEL 250 mg/kg/day</td>
<td>during gestation</td>
</tr>
</tbody>
</table>

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

<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>Isophorone Diamine</td>
<td>Inhalation</td>
<td>respiratory irritation</td>
<td>May cause respiratory irritation</td>
<td>Rat</td>
<td>LOAEL 0.002 mg/l</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Specific Target Organ Toxicity - repeated exposure**

<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>Dimethyl Siloxane, Reaction Product with</td>
<td>Inhalation</td>
<td>respiratory system</td>
<td>Not classified</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td>occupational exposure</td>
</tr>
<tr>
<td>Silica</td>
<td></td>
<td>silicosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isophorone Diamine</td>
<td>Ingestion</td>
<td>hematopoietic system</td>
<td>Not classified</td>
<td>Rat</td>
<td>NOAEL 160 mg/kg/day</td>
<td>13 weeks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>liver</td>
<td>kidney and/or bladder</td>
<td></td>
<td></td>
<td></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.

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

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.

EPCRA 311/312 Hazard Classifications:

Physical Hazards

Not applicable

Health Hazards

Acute toxicity
Respiratory or Skin Sensitization
Serious eye damage or eye irritation
Skin Corrosion or Irritation

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. All required components of this product are listed on the active portion of the TSCA Inventory.

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:  3  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.

HMIS Hazard Classification
Health:  3  Flammability:  1  Physical Hazard:  1  Personal Protection:  X - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

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Safety Data Sheet

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1.1. Product identifier
3M™ NVH Dampening Material PN 04274, 04275 (Part A)

Product Identification Numbers
LB-K100-0147-7, 60-4550-3636-2

1.2. Recommended use and restrictions on use

Recommended use
Part A of a 2-Part Urethane Dampening Material, Industrial use

1.3. Supplier’s details

MANUFACTURER: 3M
DIVISION: Automotive Aftermarket
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

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification
Acute Toxicity (inhalation): Category 3.
Serious Eye Damage/Irritation: Category 1.
Skin Corrosion/Irritation: Category 1B.
Respiratory Sensitizer: Category 1.
Skin Sensitizer: Category 1.
Carcinogenicity: Category 2.
Specific Target Organ Toxicity (single exposure): Category 3.
Specific Target Organ Toxicity (repeated exposure): Category 1.
2.2. Label elements

Signal word
Danger

Symbols
Corrosion | Skull and crossbones | Health Hazard |

Pictograms

Hazard Statements
Toxic if inhaled.
Causes severe skin burns and eye damage.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
May cause respiratory irritation.
Suspected of causing cancer.

Causes damage to organs through prolonged or repeated exposure:
respiratory system |

Precautionary Statements

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
In case of inadequate ventilation wear respiratory protection.
Wear protective gloves, protective clothing, and eye/face protection.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.

Response:
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Get medical advice/attention if you feel unwell.

Storage:
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal:
Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Hazards not otherwise classified

May cause chemical gastrointestinal burns.

Supplemental Information:

Persons previously sensitized to isocyanates may develop a cross-sensitization reaction to other isocyanates.

50% of the mixture consists of ingredients of unknown acute oral toxicity.
50% of the mixture consists of ingredients of unknown acute dermal toxicity.

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>Polyurethane Prepolymer</td>
<td>Trade Secret*</td>
<td>60 - 100</td>
</tr>
<tr>
<td>1,1'-METHYLENEBIS(ISOCYANATO BENZENE)</td>
<td>26447-40-5</td>
<td>10 - 30</td>
</tr>
<tr>
<td>P,P'-Methylenebis(phenyl isocyanate)</td>
<td>101-68-8</td>
<td>10 - 30</td>
</tr>
<tr>
<td>BENZENE, 1,1'-METHYLENEBIS[ISOCYANATO-, HOMOPOLYMER</td>
<td>39310-05-9</td>
<td>7 - 13</td>
</tr>
<tr>
<td>Chromate(1-), [N-[7-hydroxy-8-[(2-hydroxy-5-nitrophenyl)azo]-1-naphthalenyl]acetamidato(2-)][1-[(2-hydroxy-5-nitrophenyl)azo]-2-naphthalenolato(2-)]-, hydrogen, compd. with N-cyclohexylcyclohexanamine (1:1)</td>
<td>71701-12-7</td>
<td>&lt; 0.2</td>
</tr>
<tr>
<td>Chromate(1-), bis[N-[7-hydroxy-8-[(2-hydroxy-5-nitrophenyl)azo]-1-naphthalenolato(2-)]-, hydrogen, compd. with N-cyclohexylcyclohexanamine (1:1)</td>
<td>74421-71-9</td>
<td>&lt; 0.1</td>
</tr>
<tr>
<td>Chromate(1-), bis[N-[7-hydroxy-8-[(2-hydroxy-5-nitrophenyl)azo]-1-naphthalenolato(2-)]-, hydrogen, compd. with N-cyclohexylcyclohexanamine (1:1)</td>
<td>71839-90-2</td>
<td>&lt; 0.1</td>
</tr>
<tr>
<td>Chromium</td>
<td>7440-47-3</td>
<td>&lt; 0.02</td>
</tr>
<tr>
<td>Isocyanic Acid, 3-(Triethoxysilyl)Propyl Ester</td>
<td>24801-88-5</td>
<td>3 - 7</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>1333-86-4</td>
<td>0.1 - 1</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. Get medical attention.

Skin Contact:

Immediately flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

Eye Contact:

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

If Swallowed:
Rinse mouth. Do not induce vomiting. Get immediate medical attention.

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
Closed containers exposed to heat from fire may build pressure and explode.

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>
<tr>
<td>Oxides of Nitrogen</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Toxic Vapor, Gas, Particulate</td>
<td>During Combustion</td>
</tr>
</tbody>
</table>

5.3. Special protective actions for fire-fighters
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Contain spill. Pour isocyanate decontaminant solution (90% water, 8% concentrated ammonia, 2% detergent) on spill and allow to react for 10 minutes. Or pour water on spill and allow to react for more than 30 minutes. Cover with absorbent material. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a container approved for transportation by appropriate authorities, but do not seal the container for 48 hours to avoid pressure build-up. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
For industrial/occupational use only. Not for consumer sale or use. Do not use in a confined area with minimal air
exchange. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (e.g. chlorine, chromic acid etc.) Keep away from reactive metals (e.g. Aluminum, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard. Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidizing agents. Store away from amines.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>Agency</th>
<th>Limit type</th>
<th>Additional Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>P,P'-Methylenebis(phenyl isocyanate)</td>
<td>101-68-8</td>
<td>ACGIH</td>
<td>TWA:0.005 ppm</td>
<td></td>
</tr>
<tr>
<td>P,P'-Methylenebis(phenyl isocyanate)</td>
<td>101-68-8</td>
<td>OSHA</td>
<td>CEIL:0.2 mg/m3(0.02 ppm)</td>
<td></td>
</tr>
<tr>
<td>Carbon Black</td>
<td>1333-86-4</td>
<td>ACGIH</td>
<td>TWA(inhalable fraction):3 mg/m3</td>
<td>A3: Confirmed animal carcin.</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>1333-86-4</td>
<td>OSHA</td>
<td>TWA:3.5 mg/m3</td>
<td></td>
</tr>
<tr>
<td>CHROMIUM (III) COMPOUNDS</td>
<td>71701-12-7</td>
<td>ACGIH</td>
<td>TWA(as Cr(III), inhalable fraction):0.003 mg/m3; TWA(as Cr):0.5 mg/m3</td>
<td>A4: Not class. as human carcin</td>
</tr>
<tr>
<td>CHROMIUM (III) COMPOUNDS</td>
<td>71701-12-7</td>
<td>OSHA</td>
<td>TWA(as Cr):0.5 mg/m3</td>
<td></td>
</tr>
<tr>
<td>CHROMIUM (III) COMPOUNDS</td>
<td>71839-90-2</td>
<td>ACGIH</td>
<td>TWA(as Cr(III), inhalable fraction):0.003 mg/m3; TWA(as Cr):0.5 mg/m3</td>
<td>A4: Not class. as human carcin</td>
</tr>
<tr>
<td>CHROMIUM (III) COMPOUNDS</td>
<td>71839-90-2</td>
<td>OSHA</td>
<td>TWA(as Cr):0.5 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Chromium</td>
<td>7440-47-3</td>
<td>ACGIH</td>
<td>TWA(as Cr(0), inhalable fraction):0.5 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Chromium</td>
<td>7440-47-3</td>
<td>OSHA</td>
<td>TWA(as Cr):1 mg/m3</td>
<td></td>
</tr>
<tr>
<td>CHROMIUM (III) COMPOUNDS</td>
<td>74421-71-9</td>
<td>ACGIH</td>
<td>TWA(as Cr(III), inhalable fraction):0.003 mg/m3; TWA(as Cr):0.5 mg/m3</td>
<td>A4: Not class. as human carcin</td>
</tr>
<tr>
<td>CHROMIUM (III) COMPOUNDS</td>
<td>74421-71-9</td>
<td>OSHA</td>
<td>TWA(as Cr):0.5 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

ACGIH : American Conference of Governmental Industrial Hygienists
AIIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling
8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

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
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions.
Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.
Gloves made from the following material(s) are recommended: Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection
An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program.
Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
- Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Physical Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Specific Physical Form</td>
<td>Viscous</td>
</tr>
<tr>
<td>Odor, Color, Grade:</td>
<td>Low or no detectable odor, black.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No Data Available</td>
</tr>
<tr>
<td>pH</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Melting point</td>
<td>&gt;=400 ºF</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>&gt;=290 ºF [Test Method: Tagliabue Closed Cup]</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&lt;=1 [Details: Gels with exposure to humidity.]</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>&lt;=0.000004 mmHg [@ 68 ºF]</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not Applicable</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>
<tr>
<td>Vapor Pressure</td>
<td>&lt;=1 [Ref Std: AIR=1]</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>1.06 g/ml</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.06 [Ref Std: WATER=1]</td>
</tr>
<tr>
<td>Property</td>
<td>Value</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Negligible</td>
</tr>
<tr>
<td>Solubility- non-water</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/ water</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>2,800 - 3,800 centipoise</td>
</tr>
<tr>
<td>Hazardous Air Pollutants</td>
<td>0.981 lb HAPS/lb solids [Test Method: Calculated]</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Volatile Organic Compounds</td>
<td>8 g/l [Test Method: calculated SCAQMD rule 443.1]</td>
</tr>
<tr>
<td>Volatile Organic Compounds</td>
<td>0.8 % weight [Test Method: calculated per CARB title 2]</td>
</tr>
<tr>
<td>Percent volatile</td>
<td>0.71 % weight</td>
</tr>
<tr>
<td>VOC Less H2O &amp; Exempt Solvents</td>
<td>8 g/l [Test Method: calculated SCAQMD rule 443.1]</td>
</tr>
</tbody>
</table>

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 may occur.

10.4. Conditions to avoid
Heat
Sparks and/or flames

10.5. Incompatible materials
Water
Strong acids
Strong bases
Reactive metals
Alcohols
Amines
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:**
Toxic if inhaled.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

May cause additional health effects (see below).

**Skin Contact:**
Corrosive (Skin Burns): Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.

Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

**Eye Contact:**
Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

**Ingestion:**
Gastrointestinal Corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain; nausea; vomiting; and diarrhea; blood in the feces and/or vomitus may also be seen.

**Additional Health Effects:**

Prolonged or repeated exposure may cause target organ effects:
Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

**Carcinogenicity:**
Contains a chemical or chemicals which can cause cancer.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No.</th>
<th>Class Description</th>
<th>Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Black</td>
<td>1333-86-4</td>
<td>Grp. 2B: Possible human carc.</td>
<td>International Agency for Research on Cancer</td>
</tr>
</tbody>
</table>

**Additional Information:**
Persons previously sensitized to isocyanates may develop a cross-sensitization reaction to other isocyanates.

**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>Dermal</td>
<td>No data available; calculated ATE &gt;5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Overall product</td>
<td>Inhalation-Vapor(4 hr)</td>
<td>No data available; calculated ATE2 - 10 mg/l</td>
<td></td>
</tr>
<tr>
<td>Overall product</td>
<td>Ingestion</td>
<td>No data available; calculated ATE &gt;5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>1,1'-METHYLENEBIS(ISOCYANATOBENZENE)</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD50 &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>1,1'-METHYLENEBIS(ISOCYANATOBENZENE)</td>
<td>Inhalation-Dust/Mist</td>
<td>Rat</td>
<td>LC50 0.368 mg/l</td>
</tr>
</tbody>
</table>
### Skin Corrosion/Irritation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1'-METHYLENEBIS(ISOCYANATOBENZENE)</td>
<td>official classification</td>
<td>Irritant</td>
</tr>
<tr>
<td>P,P'-Methylenebis(phenyl isocyanate)</td>
<td>official classification</td>
<td>Irritant</td>
</tr>
<tr>
<td>BENZENE, 1,1'-METHYLENEBIS[ISOCYANATO-, HOMOPOLYMER</td>
<td>official classification</td>
<td>Irritant</td>
</tr>
<tr>
<td>Isocyanic Acid, 3-(Triethoxysilyl)Propyl Ester</td>
<td>Rabbit</td>
<td>Corrosive</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>Rabbit</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>1,1'-METHYLENEBIS(ISOCYANATOBENZENE)</td>
<td>official classification</td>
<td>Severe irritant</td>
</tr>
<tr>
<td>P,P'-Methylenebis(phenyl isocyanate)</td>
<td>official classification</td>
<td>Severe irritant</td>
</tr>
<tr>
<td>BENZENE, 1,1'-METHYLENEBIS[ISOCYANATO-, HOMOPOLYMER</td>
<td>official classification</td>
<td>Severe irritant</td>
</tr>
<tr>
<td>Isocyanic Acid, 3-(Triethoxysilyl)Propyl Ester</td>
<td>Rabbit</td>
<td>Corrosive</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
</tbody>
</table>

### Skin Sensitization

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1'-METHYLENEBIS(ISOCYANATOBENZENE)</td>
<td>official classification</td>
<td>Sensitizing</td>
</tr>
<tr>
<td>P,P'-Methylenebis(phenyl isocyanate)</td>
<td>official classification</td>
<td>Sensitizing</td>
</tr>
<tr>
<td>BENZENE, 1,1'-METHYLENEBIS[ISOCYANATO-, HOMOPOLYMER</td>
<td>official classification</td>
<td>Sensitizing</td>
</tr>
</tbody>
</table>
### Respiratory Sensitization

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1'-METHYLENEBIS(ISOCYANATOBENZENE)</td>
<td>Human</td>
<td>Sensitizing</td>
</tr>
<tr>
<td>P,P'-Methylenebis(phenyl isocyanate)</td>
<td>Human</td>
<td>Sensitizing</td>
</tr>
<tr>
<td>BENZENE, 1,1'-METHYLENEBIS[ISOCYANATO-, HOMOPOLYMER</td>
<td>Human</td>
<td>Sensitizing</td>
</tr>
<tr>
<td>Isocyanaic Acid, 3-(Triethoxysilyl)Propyl Ester</td>
<td>similar compoun ds</td>
<td>Sensitizing</td>
</tr>
</tbody>
</table>

### Germ Cell Mutagenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1'-METHYLENEBIS(ISOCYANATOBENZENE)</td>
<td>In Vitro</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>P,P'-Methylenebis(phenyl isocyanate)</td>
<td>In Vitro</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>BENZENE, 1,1'-METHYLENEBIS[ISOCYANATO-, HOMOPOLYMER</td>
<td>In Vitro</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>In Vitro</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>In vivo</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
</tbody>
</table>

### Carcinogenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1'-METHYLENEBIS(ISOCYANATOBENZENE)</td>
<td>Inhalation</td>
<td>Rat</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>P,P'-Methylenebis(phenyl isocyanate)</td>
<td>Inhalation</td>
<td>Rat</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>BENZENE, 1,1'-METHYLENEBIS[ISOCYANATO-, HOMOPOLYMER</td>
<td>Inhalation</td>
<td>Rat</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>Dermal</td>
<td>Mouse</td>
<td>Not carcinogenic</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>Ingestion</td>
<td>Mouse</td>
<td>Not carcinogenic</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>Inhalation</td>
<td>Rat</td>
<td>Carcinogenic</td>
</tr>
</tbody>
</table>

### Reproductive Toxicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
<th>Species</th>
<th>Test Result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1'-METHYLENEBIS(ISOCYANATOBENZENE)</td>
<td>Inhalation</td>
<td>Not classified for development</td>
<td>Rat</td>
<td>NOAEL 0.004 mg/l</td>
<td>during organogenesis</td>
</tr>
<tr>
<td>P,P'-Methylenebis(phenyl isocyanate)</td>
<td>Inhalation</td>
<td>Not classified for development</td>
<td>Rat</td>
<td>NOAEL 0.004 mg/l</td>
<td>during organogenesis</td>
</tr>
<tr>
<td>BENZENE, 1,1'-METHYLENEBIS[ISOCYANATO-, HOMOPOLYMER</td>
<td>Inhalation</td>
<td>Not classified for development</td>
<td>Rat</td>
<td>NOAEL 0.004 mg/l</td>
<td>during organogenesis</td>
</tr>
</tbody>
</table>

### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target Organ(s)</th>
<th>Species</th>
<th>Test Result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1'-METHYLENEBIS(ISOCYANATOBENZENE)</td>
<td>Inhalation</td>
<td>respiratory irritation</td>
<td>May cause respiratory irritation</td>
<td>official classification</td>
<td>NOAEL Not available</td>
</tr>
<tr>
<td>P,P'-Methylenebis(phenyl isocyanate)</td>
<td>Inhalation</td>
<td>respiratory irritation</td>
<td>May cause respiratory irritation</td>
<td>official</td>
<td>NOAEL Not</td>
</tr>
<tr>
<td>Name</td>
<td>Route</td>
<td>Target Organ(s)</td>
<td>Value</td>
<td>Species</td>
<td>Test Result</td>
</tr>
<tr>
<td>------</td>
<td>-------</td>
<td>-----------------</td>
<td>-------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>1,1’-METHYLENEBIS(ISOCYANATO-BENZENE)</td>
<td>Inhalation</td>
<td>respiratory system</td>
<td>Causes damage to organs through prolonged or repeated exposure</td>
<td>Rat</td>
<td>LOAEL 0.004 mg/l</td>
</tr>
<tr>
<td>P,P’-Methylenebis(phenyl isocyanate)</td>
<td>Inhalation</td>
<td>respiratory system</td>
<td>Causes damage to organs through prolonged or repeated exposure</td>
<td>Rat</td>
<td>LOAEL 0.004 mg/l</td>
</tr>
<tr>
<td>BENZENE, 1,1’-METHYLENEBIS[ISOCY ANATO-, HOMOPOLYMER</td>
<td>Inhalation</td>
<td>respiratory system</td>
<td>Causes damage to organs through prolonged or repeated exposure</td>
<td>Rat</td>
<td>LOAEL 0.004 mg/l</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>Inhalation</td>
<td>pneumoconiosis</td>
<td>Not classified</td>
<td>Human</td>
<td>NOAEL Not available</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.

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. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

**SECTION 14: Transport Information**

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

**SECTION 15: Regulatory information**
15.1. US Federal Regulations
Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

<table>
<thead>
<tr>
<th>Physical Hazards</th>
<th>Health Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Acute toxicity</td>
</tr>
<tr>
<td></td>
<td>Carcinogenicity</td>
</tr>
<tr>
<td></td>
<td>Hazard Not Otherwise Classified (HNOC)</td>
</tr>
<tr>
<td></td>
<td>Respiratory or Skin Sensitization</td>
</tr>
<tr>
<td></td>
<td>Serious eye damage or eye irritation</td>
</tr>
<tr>
<td></td>
<td>Skin Corrosion or Irritation</td>
</tr>
<tr>
<td></td>
<td>Specific target organ toxicity (single or repeated exposure)</td>
</tr>
</tbody>
</table>

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No</th>
<th>% by Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>P,P’-Methylenebis(phenyl isocyanate)</td>
<td>101-68-8</td>
<td>Trade Secret 10 - 30</td>
</tr>
<tr>
<td>P,P’-Methylenebis(phenyl isocyanate) (Benzene, 1,1'-methylenebis[4-isocyanato-)</td>
<td>101-68-8</td>
<td>10 - 30</td>
</tr>
<tr>
<td>P,P’-Methylenebis(phenyl isocyanate) (DIISOCYANATES (CERTAIN CHEMICALS ONLY))</td>
<td>101-68-8</td>
<td>10 - 30</td>
</tr>
</tbody>
</table>

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. All required components of this product are listed on the active portion of the TSCA Inventory.

Contact 3M for more information.

15.4. International Regulations
Contact 3M for more information.

SECTION 16: Other information

NFPA Hazard Classification
Health: 3 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.
HMIS Hazard Classification

Health: *3  Flammability: 1  Physical Hazard: 1  Personal Protection: X - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

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