3M Scotch-Weld DP-190 Kit (Grey)

Safety Data Sheet

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Document group: 24-5062-5 Version number: 10.00
Revision date: 10/04/2017 Supersedes date: 19/10/2015
Transportation version number: 5.00 (07/04/2015)

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier
3M Scotch-Weld DP-190 Kit (Grey)

Product Identification Numbers
FS-9100-2219-3  FS-9100-3383-6  FS-9100-5404-8

7000079977  7000080387  7000079884

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Structural adhesive.

1.3. Details of the supplier of the safety data sheet
Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
Telephone: +44 (0)1344 858 000
E Mail: tox.uk@mmm.com
Website: www.3M.com/uk

1.4. Emergency telephone number
+44 (0)1344 858 000

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet for each of these components is included. Please do not separate the component Safety Data Sheets from this cover page. The document numbers of the MSDSs for components of this product are:

24-4380-2, 24-4377-8

TRANSPORTATION INFORMATION

FS-9100-2219-3,  FS-9100-3383-6,  FS-9100-5404-8

Not hazardous for transportation
2.1. Classification of the substance or mixture
CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:
Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411

For full text of H phrases, see Section 16.

2.2. Label elements
CLP REGULATION (EC) No 1272/2008

SIGNAL WORD
DANGER.

Symbols:
GHS05 (Corrosion) | GHS07 (Exclamation mark) | GHS09 (Environment) |

Pictograms

HAZARD STATEMENTS:
H318 Causes serious eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:
P280B Wear protective gloves and eye/face protection.
P273 Avoid release to the environment.

Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE or doctor/physician.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

Disposal:
P501 Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:
<=125 ml Hazard statements
H317 May cause an allergic skin reaction.

<=125 ml Precautionary statements

Prevention:
P280B Wear protective gloves and eye/face protection.

Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE or doctor/physician.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

Refer to Safety Data Sheet for component % unknown values (www.3M.com/msds).

Revision information:
Section 01: SAP Material Numbers information was added.
Section 2: <125ml Hazard - Health information was modified.
Safety Data Sheet

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Document group: 24-4380-2
Revision date: 10/04/2017
Supersedes date: 03/06/2015
Transportation version number: 1.00 (19/11/2010)

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
3M(tm) Scotch-Weld(tm) Epoxy Structural Adhesive DP-190 Grey : Part B

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Structural adhesive.

1.3. Details of the supplier of the safety data sheet
Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
Telephone: +44 (0)1344 858 000
E Mail: tox.uk@mmm.com
Website: www.3M.com/uk

1.4. Emergency telephone number
+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411

For full text of H phrases, see Section 16.

2.2. Label elements
CLP REGULATION (EC) No 1272/2008

SIGNAL WORD
WARNING.
Symbols:
GHS07 (Exclamation mark) | GHS09 (Environment) |

Pictograms

Ingredients:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Nbr</th>
<th>% by Wt</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4’-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>25068-38-6</td>
<td>70 - 80</td>
<td>Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 2, H411</td>
</tr>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>20 - 30</td>
<td>Substance with a Community level exposure limit in the workplace</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>&lt; 1</td>
<td>Substance with a</td>
</tr>
</tbody>
</table>

HAZARD STATEMENTS:

H319 Causes serious eye irritation.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:
P280E Wear protective gloves.
P273 Avoid release to the environment.

Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

Disposal:
P501 Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Other hazards
None known.

SECTION 3: Composition/information on ingredients
Community level exposure limit in the workplace

Please see section 16 for the full text of any H statements referred to in this section

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

**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**  
Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, 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. 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.

5.3. Advice 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  
Evacuate area. Ventilate the area with fresh air. 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.

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 with an appropriate solvent selected by a qualified and authorised person. Ventilate the area
with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections
Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/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 oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators…) as required.

7.2. Conditions for safe storage including any incompatibilities
Protect from sunlight. Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidising agents. Store away from amines.

7.3. Specific end use(s)
See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

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>CAS Nbr</th>
<th>Agency</th>
<th>Limit type</th>
<th>Additional comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>UK HSC</td>
<td>TWA (as respirable dust): 2 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>UK HSC</td>
<td>TWA(Inhalable):10 mg/m³; TWA(respirable):4 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

UK HSC: UK Health and Safety Commission
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

### Biological limit values
No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

8.2. Exposure controls

8.2.1. Engineering controls
Provide ventilated enclosure for heat curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. 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/vapours/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:
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:

<table>
<thead>
<tr>
<th>Material</th>
<th>Thickness (mm)</th>
<th>Breakthrough Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butyl rubber</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>Polymer laminate</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

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 vapours 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>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Specific Physical Form:</td>
<td>Paste</td>
</tr>
<tr>
<td>Appearance/Odour</td>
<td>Epoxy odour, beige colour.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>&gt;=200 ºC</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not classified</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not classified</td>
</tr>
<tr>
<td>Flash point</td>
<td>150 ºC</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammable Limits(LEL)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammable Limits(UEL)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.31 - 1.39</td>
</tr>
<tr>
<td>Water solubility</td>
<td>No data available</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>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>75 - 150 Pa-s [@ 24 ºC ]</td>
</tr>
</tbody>
</table>
9.2. Other information

Density

No data available.

Percent volatile

<=1 %

SECTION 10: Stability and reactivity

10.1 Reactivity
This material is considered to be non reactive under normal use conditions

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.4 Conditions to avoid
Heat is generated during cure. Do not cure a mass larger than 50 grams in a confined space to prevent a premature exothermic reaction with production of intense heat and smoke.

10.5 Incompatible materials
Amines.
Strong acids.
Strong bases.
Strong oxidising agents.

10.6 Hazardous decomposition products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldehydes.</td>
<td>Not specified.</td>
</tr>
<tr>
<td>Carbon monoxide.</td>
<td>Not specified.</td>
</tr>
<tr>
<td>Carbon dioxide.</td>
<td>Not specified.</td>
</tr>
</tbody>
</table>

SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

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
Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, nose and throat pain. May cause additional health effects (see below).

Skin contact
Mild Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.
Eye contact
Moderate eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Vapours released during curing may cause eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Dust created by cutting, grinding, sanding, or machining may cause eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:
Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

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

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>Ingestion</td>
<td>No data available; calculated ATE &gt;5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>4,4’-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>Dermal</td>
<td>Rat</td>
<td>LD50 &gt; 1,600 mg/kg</td>
</tr>
<tr>
<td>4,4’-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt; 1,000 mg/kg</td>
</tr>
<tr>
<td>Kaolin</td>
<td>Dermal</td>
<td>LD50 estimated to be &gt; 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Kaolin</td>
<td>Ingestion</td>
<td>Human</td>
<td>LD50 &gt; 15,000 mg/kg</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD50 &gt; 10,000 mg/kg</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>Inhalation-Dust/Mist (4 hours)</td>
<td>Rat</td>
<td>LC50 &gt; 6.82 mg/l</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt; 10,000 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>4,4’-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>Rabbit</td>
<td>Mild irritant</td>
</tr>
<tr>
<td>Kaolin</td>
<td>Professio nal judgemen t</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Titanium dioxide</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>4,4’-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>Rabbit</td>
<td>Moderate irritant</td>
</tr>
<tr>
<td>Kaolin</td>
<td>Professio nal judgemen t</td>
<td>No significant irritation</td>
</tr>
</tbody>
</table>
### Skin Sensitisation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>Human and animal</td>
<td>Sensitising</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>Human and animal</td>
<td>Not sensitising</td>
</tr>
</tbody>
</table>

### Respiratory Sensitisation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>Human</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
</tbody>
</table>

### Germ Cell Mutagenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>In vivo</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>In Vitro</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>In Vitro</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>Titanium dioxide</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>4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>Dermal</td>
<td>Mouse</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>Kaolin</td>
<td>Inhalation</td>
<td>Multiple animal species</td>
<td>Not carcinogenic</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>Ingestion</td>
<td>Multiple animal species</td>
<td>Not carcinogenic</td>
</tr>
<tr>
<td>Titanium dioxide</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>4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>Ingestion</td>
<td>Not toxic to female reproduction</td>
<td>Rat</td>
<td>NOAEL 750 mg/kg/day</td>
<td>2 generation</td>
</tr>
<tr>
<td>4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>Ingestion</td>
<td>Not toxic to male reproduction</td>
<td>Rat</td>
<td>NOAEL 750 mg/kg/day</td>
<td>2 generation</td>
</tr>
<tr>
<td>4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>Dermal</td>
<td>Not toxic to development</td>
<td>Rabbit</td>
<td>NOAEL 300 mg/kg/day</td>
<td>during organogenesis</td>
</tr>
<tr>
<td>4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>Ingestion</td>
<td>Not toxic to development</td>
<td>Rat</td>
<td>NOAEL 750 mg/kg/day</td>
<td>2 generation</td>
</tr>
</tbody>
</table>

### Target Organ(s)

**Specific Target Organ Toxicity - single exposure**

For the component/components, either no data is currently available or the data is not sufficient for classification.
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>4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>Dermal</td>
<td>liver</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL 1,000 mg/kg/day</td>
<td>2 years</td>
</tr>
<tr>
<td>4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>Dermal</td>
<td>nervous system</td>
<td>All data are negative</td>
<td>Rat</td>
<td>NOAEL 1,000 mg/kg/day</td>
<td>13 weeks</td>
</tr>
<tr>
<td>4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>Ingestion</td>
<td>auditory system</td>
<td>heart</td>
<td>endocrine system</td>
<td>hematopoietic system</td>
<td>liver</td>
</tr>
<tr>
<td>Kaolin</td>
<td>Inhalation</td>
<td>pneumoconiosis</td>
<td>Causes damage to organs through prolonged or repeated exposure</td>
<td>Human</td>
<td>NOAEL NA</td>
<td>occupational exposure</td>
</tr>
<tr>
<td>Kaolin</td>
<td>Inhalation</td>
<td>pulmonary fibrosis</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>LOAEL 0.01 mg/l</td>
<td>2 years</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>Inhalation</td>
<td>respiratory system</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL Not available</td>
<td></td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>Inhalation</td>
<td>pulmonary fibrosis</td>
<td>All data are negative</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td></td>
</tr>
</tbody>
</table>

Aspiration Hazard
For the component/components, either no data is currently available or the data is 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**

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Nbr</th>
<th>Organism</th>
<th>Type</th>
<th>Exposure</th>
<th>Test endpoint</th>
<th>Test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>Fish</td>
<td>Experimental</td>
<td>30 days</td>
<td>NOEC</td>
<td>&gt;100 mg/l</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>Sheepshead Minnow</td>
<td>Experimental</td>
<td>96 hours</td>
<td>LC50</td>
<td>&gt;240 mg/l</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>Water flea</td>
<td>Experimental</td>
<td>30 days</td>
<td>NOEC</td>
<td>3 mg/l</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>Water flea</td>
<td>Experimental</td>
<td>48 hours</td>
<td>EC50</td>
<td>&gt;100 mg/l</td>
</tr>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>Data not available or</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Nbr</th>
<th>Test type</th>
<th>Duration</th>
<th>Study Type</th>
<th>Test result</th>
<th>Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>Data not available or insufficient for classification</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Titanium</td>
<td>13463-67-7</td>
<td>Data not available or insufficient for classification</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>4,4'-'</td>
<td>Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>25068-38-6</td>
<td>Laboratory Hydrolysis</td>
<td>Hydrolytic half-life</td>
<td>&lt;2 days (t (1/2))</td>
<td>Other methods</td>
</tr>
<tr>
<td>4,4'-'</td>
<td>Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane</td>
<td>25068-38-6</td>
<td>Laboratory Biodegradation</td>
<td>BOD</td>
<td>0 % weight</td>
<td>OECD 301C - MITI test (I)</td>
</tr>
</tbody>
</table>

### 12.3 : Bioaccumulative potential

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Nbr</th>
<th>Test type</th>
<th>Duration</th>
<th>Study Type</th>
<th>Test result</th>
<th>Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>Data not available or insufficient for classification</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Titanium</td>
<td>13463-67-7</td>
<td>Experimental</td>
<td>42 days</td>
<td>Bioaccumulation</td>
<td>9.6</td>
<td>Other methods</td>
</tr>
</tbody>
</table>
12.4. Mobility in soil
Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment
No information available at this time, contact manufacturer for more details

12.6. Other adverse effects
No information available.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods
See Section 11.1 Information on toxicological effects

Dispose of completely cured (or polymerised) 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.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

**EU waste code (product as sold)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>08 04 09*</td>
<td>Waste adhesives and sealants containing organic solvents or other dangerous substances</td>
</tr>
<tr>
<td>20 01 27*</td>
<td>Paint, inks, adhesives and resins containing dangerous substances</td>
</tr>
</tbody>
</table>

### SECTION 14: Transportation information

ADR/IMDG/IATA: Not restricted for transport.

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Nbr</th>
<th>Classification</th>
<th>Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>Grp. 2B: Possible human carc.</td>
<td>International Agency for Research on Cancer</td>
</tr>
</tbody>
</table>
Global inventory status
Contact 3M for more information.

15.2. Chemical Safety Assessment
Not applicable

SECTION 16: Other information

List of relevant H statements

| H315       | Causes skin irritation.       |
| H317       | May cause an allergic skin reaction. |
| H319       | Causes serious eye irritation.       |
| H411       | Toxic to aquatic life with long lasting effects.       |

Revision information:
Section 2: Additional label requirements phrase information was deleted.
Section 2: Indication of danger information information was deleted.
Label: Graphic Text information was deleted.
Label: Graphic information was deleted.
Section 2: Label ingredient information information was deleted.
Section 2: R phrase reference information was deleted.
Risk phrase information was deleted.
Safety phrase information was deleted.
Section 3: Composition/ Information of ingredients table information was added.
Section 3: Composition/ Information of ingredients table information was deleted.
Section 3: Reference to H statement explanation in Section 016 information was added.
Section 3: Reference to R and H statement explanation in Section 16 information was deleted.
Section 3: Reference to section 15 for Nota info information was deleted.
Section 8: Occupational exposure limit table information was modified.
Section 9: Property description for optional properties information was added.
Section 9: Property description for optional properties information was deleted.
Section 11: Acute Toxicity table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12:Biocumulative potential information information was modified.
Section 15: Carcinogenicity information information was modified.
Section 16: List of relevant R phrase information information was deleted.
Section 16: List of relevant R-phrases information was deleted.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M United Kingdom MSDSs are available at www.3M.com/uk
Safety Data Sheet

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Version number: 9.00
Revision date: 10/04/2017
Supersedes date: 03/06/2015
Transportation version number: 1.00 (19/11/2010)

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
3M(tm) Scotch-Weld(tm) Epoxy Structural Adhesive DP-190 Grey : Part A

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Structural adhesive.

1.3. Details of the supplier of the safety data sheet
Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
Telephone: +44 (0)1344 858 000
E Mail: tox.uk@mmm.com
Website: www.3M.com/uk

1.4. Emergency telephone number
+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:
Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Skin Sensitization, Category 1 - Skin Sens. 1; H317

For full text of H phrases, see Section 16.

2.2. Label elements
CLP REGULATION (EC) No 1272/2008

SIGNAL WORD
DANGER.
Symbols:
GHS05 (Corrosion) | GHS07 (Exclamation mark) |

Pictograms

Ingredients:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Nbr</th>
<th>% by Wt</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxys bis(ethyleneoxy)bis(propylamine)</td>
<td>68911-25-1</td>
<td>50 - 60</td>
<td>Skin Irrit. 2, H315; Eye Dam. 1, H318; Skin Sens. 1, H317</td>
</tr>
<tr>
<td>3,3'-Oxybis(ethyleneoxy)bis(propylamine)</td>
<td>4246-51-9</td>
<td>&lt; 10</td>
<td></td>
</tr>
</tbody>
</table>

HAZARD STATEMENTS:

- **H318**: Causes serious eye damage.
- **H315**: Causes skin irritation.
- **H317**: May cause an allergic skin reaction.

PRECAUTIONARY STATEMENTS

Prevention:

- **P280B**: Wear protective gloves and eye/face protection.

Response:

- **P305 + P351 + P338**: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **P310**: Immediately call a POISON CENTRE or doctor/physician.
- **P333 + P313**: If skin irritation or rash occurs: Get medical advice/attention.

53% of the mixture consists of components of unknown acute oral toxicity.

Contains 53% of components with unknown hazards to the aquatic environment.

Notes on labelling

Skin corrosion not applied to material due to test data which indicates the material is a moderate skin irritant.

2.3. Other hazards

None known.

**SECTION 3: Composition/information on ingredients**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Nbr</th>
<th>EC No.</th>
<th>REACH Registration No.</th>
<th>% by Wt</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxys bis(ethyleneoxy)bis(propylamine)</td>
<td>68911-25-1</td>
<td></td>
<td></td>
<td>50 - 60</td>
<td>Skin Irrit. 2, H315; Eye Dam. 1, H318; Skin Sens. 1, H317</td>
</tr>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>310-194-1</td>
<td></td>
<td>30 - 40</td>
<td>Substance with a Community level exposure limit in the workplace</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. 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.

5.3. Advice 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
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, 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 dykes 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. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections
Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling
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/vapours/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. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators…) as required.

7.2. Conditions for safe storage including any incompatibilities
Protect from sunlight. Store away from heat. Store away from acids. Store away from oxidising agents.

7.3. Specific end use(s)
See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

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>CAS Nbr</th>
<th>Agency</th>
<th>Limit type</th>
<th>Additional comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>UK HSC</td>
<td>TWA: 191 mg/m³ (50 ppm); STEL: 384 mg/m³ (100 ppm)</td>
<td>SKIN</td>
</tr>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>UK HSC</td>
<td>TWA (as respirable dust): 2 mg/m³</td>
<td></td>
</tr>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>13463-67-7</td>
<td>UK HSC</td>
<td>TWA(Inhalable):10 mg/m³; TWA(respirable):4 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

UK HSC : UK Health and Safety Commission
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

Biological limit values
No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

8.2. Exposure controls

8.2.1. Engineering controls
Provide ventilated enclosure for heat curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. 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/vapours/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:

<table>
<thead>
<tr>
<th>Material</th>
<th>Thickness (mm)</th>
<th>Breakthrough Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymer laminate</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

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 vapours 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>Physical state</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Specific Physical Form:</td>
<td>Paste</td>
</tr>
<tr>
<td>Appearance/Odour</td>
<td>Amine odour, grey colour.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>152 ºC</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not classified.</td>
</tr>
</tbody>
</table>
Oxidising properties  Not classified  
Flash point  >= 90 ºC  
Autoignition temperature  No data available.  
Flammable Limits(LEL)  No data available.  
Flammable Limits(UEL)  No data available.  
Vapour pressure  Not applicable.  
Relative density  1.31 - 1.39  [Ref Std: WATER=1]  
Solubility- non-water  No data available.  
Partition coefficient: n-octanol/water  No data available.  
Evaporation rate  No data available.  
Vapour density  Not applicable.  
Decomposition temperature  No data available.  
Viscosity  40 - 80 Pa-s [@ 24 ºC ]  
Density  No data available.  

9.2. Other information  
Percent volatile  1 %  

SECTION 10: Stability and reactivity  

10.1 Reactivity  
This material is considered to be non reactive under normal use conditions  

10.2 Chemical stability  
Stable.  

10.3 Possibility of hazardous reactions  
Hazardous polymerisation will not occur.  

10.4 Conditions to avoid  
Heat is generated during cure. Do not cure a mass larger than 50 grams in a confined space to prevent a premature exothermic reaction with production of intense heat and smoke.  

10.5 Incompatible materials  
Strong acids.  
Strong oxidising agents.  

10.6 Hazardous decomposition products  
Substance  Condition  
Carbon monoxide.  Not specified.  
Carbon dioxide.  Not specified.  

SECTION 11: Toxicological information  

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.  

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**
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, nose and throat pain. May cause additional health effects (see below).

**Skin contact**
Skin Irritation: Signs/symptoms may include localised 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. Vapours released during curing may cause eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Dust created by cutting, grinding, sanding, or machining may cause eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

**Ingestion**
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

**Additional Health Effects:**

**Prolonged or repeated exposure may cause target organ effects:**
Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

**Reproductive/Developmental Toxicity:**
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

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

**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>Ingestion</td>
<td>No data available; calculated ATE &gt;5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Kaolin</td>
<td>Dermal</td>
<td>LD50 estimated to be &gt; 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Kaolin</td>
<td>Ingestion Human</td>
<td>LD50 &gt; 15,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>3,3'-Oxybis(ethylenoxy)bis(propylamine)</td>
<td>Dermal Rabbit</td>
<td>LD50 2,500 mg/kg</td>
<td></td>
</tr>
<tr>
<td>3,3'-Oxybis(ethylenoxy)bis(propylamine)</td>
<td>Ingestion Rat</td>
<td>LD50 3,160 mg/kg</td>
<td></td>
</tr>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>Dermal Rabbit</td>
<td>LD50 &gt; 10,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>Inhalation-Rat</td>
<td>LC50 &gt; 6.82 mg/l</td>
<td></td>
</tr>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>Ingestion Rat</td>
<td>LD50 &gt; 10,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>Dermal Rat</td>
<td>LD50 12,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>Inhalation-Vapour (4 hours) Rat</td>
<td>LC50 30 mg/l</td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>Ingestion Rat</td>
<td>LD50 5,550 mg/kg</td>
<td></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>Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethylenoxy)bis(propylamine)</td>
<td>Rabbit</td>
<td>Irritant</td>
</tr>
<tr>
<td>Kaolin</td>
<td>Professio nal judgemen t</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>3,3'-Oxybis(ethylenoxy)bis(propylamine)</td>
<td>Rabbit</td>
<td>Corrosive</td>
</tr>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Toluene</td>
<td>Rabbit</td>
<td>Irritant</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>Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethylenoxy)bis(propylamine)</td>
<td>similar health hazards</td>
<td>Corrosive</td>
</tr>
<tr>
<td>Kaolin</td>
<td>Professio nal judgemen t</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>3,3'-Oxybis(ethylenoxy)bis(propylamine)</td>
<td>similar health hazards</td>
<td>Corrosive</td>
</tr>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Toluene</td>
<td>Rabbit</td>
<td>Moderate irritant</td>
</tr>
</tbody>
</table>

## Skin Sensitisation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethylenoxy)bis(propylamine)</td>
<td>Guinea pig</td>
<td>Sensitising</td>
</tr>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>Human and animal</td>
<td>Not sensitising</td>
</tr>
<tr>
<td>Toluene</td>
<td>Guinea pig</td>
<td>Not sensitising</td>
</tr>
</tbody>
</table>

## Respiratory Sensitisation

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

## Germ Cell Mutagenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>In Vitro</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>In vivo</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>Toluene</td>
<td>In Vitro</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>Toluene</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>Kaolin</td>
<td>Inhalation</td>
<td>Multiple animal species</td>
<td>Not carcinogenic</td>
</tr>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>Ingestion</td>
<td>Multiple animal species</td>
<td>Not carcinogenic</td>
</tr>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>Inhalation</td>
<td>Rat</td>
<td>Carcinogenic</td>
</tr>
<tr>
<td>Toluene</td>
<td>Dermal</td>
<td>Mouse</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>Toluene</td>
<td>Ingestion</td>
<td>Rat</td>
<td>Some positive data exist, but the data are not sufficient for classification</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>Toluene</td>
<td>Inhalation</td>
<td>Some positive female reproductive data exist, but the data are not sufficient for classification</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td>occupational exposure</td>
</tr>
<tr>
<td>Toluene</td>
<td>Inhalation</td>
<td>Some positive male reproductive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL 2.3 mg/l</td>
<td>1 generation</td>
</tr>
<tr>
<td>Toluene</td>
<td>Ingestion</td>
<td>Toxic to development</td>
<td>Rat</td>
<td>LOAEL 520 mg/kg/day</td>
<td>during gestation</td>
</tr>
<tr>
<td>Toluene</td>
<td>Inhalation</td>
<td>Toxic to development</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td>poisoning and/or abuse</td>
</tr>
</tbody>
</table>

#### 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>3,3'-Oxybis(ethylenoxy)bis(procyclamine)</td>
<td>Inhalation</td>
<td>respiratory irritation</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>Inhalation</td>
<td>central nervous system</td>
<td>May cause drowsiness or dizziness</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>Inhalation</td>
<td>respiratory irritation</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>Inhalation</td>
<td>immune system</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Mouse</td>
<td>NOAEL 0.004 mg/l</td>
<td>3 hours</td>
</tr>
<tr>
<td>Toluene</td>
<td>Ingestion</td>
<td>central nervous system</td>
<td>May cause drowsiness or dizziness</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td>poisoning and/or abuse</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>Kaolin</td>
<td>Inhalation</td>
<td>pneumoconiosis</td>
<td>Causes damage to organs through prolonged or repeated exposure</td>
<td>Human</td>
<td>NOAEL NA</td>
<td>occupational exposure</td>
</tr>
<tr>
<td>Kaolin</td>
<td>Inhalation</td>
<td>pulmonary fibrosis</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL Not available</td>
<td></td>
</tr>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>Inhalation</td>
<td>respiratory system</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>LOAEL 0.01 mg/l</td>
<td>2 years</td>
</tr>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>Inhalation</td>
<td>pulmonary fibrosis</td>
<td>All data are negative</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td>occupational exposure</td>
</tr>
<tr>
<td>Toluene</td>
<td>Inhalation</td>
<td>auditory system</td>
<td>nervous system</td>
<td>eyes</td>
<td>olfactory system</td>
<td>Causes damage to organs through prolonged or repeated exposure</td>
</tr>
<tr>
<td>Toluene</td>
<td>Inhalation</td>
<td>respiratory system</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>LOAEL 2.3 mg/l</td>
<td>15 months</td>
</tr>
<tr>
<td>Toluene</td>
<td>Inhalation</td>
<td>heart</td>
<td>liver</td>
<td>kidney and/or bladder</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
</tr>
<tr>
<td>Toluene</td>
<td>Inhalation</td>
<td>endocrine system</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL 1.1 mg/l</td>
<td>4 weeks</td>
</tr>
</tbody>
</table>
**Toluene**

**Inhalation**

Immune system

Some positive data exist, but the data are not sufficient for classification

Mouse NOAEL Not available 20 days

**Inhalation**

Bone, teeth, nails, and/or hair

Some positive data exist, but the data are not sufficient for classification

Mouse NOAEL 1.1 mg/l 8 weeks

**Inhalation**

Hematopoietic system | Vascular system

Some positive data exist, but the data are not sufficient for classification

Human NOAEL Not available occupational exposure

**Ingestion**

Nervous system

Some positive data exist, but the data are not sufficient for classification

Rat NOAEL 625 mg/kg/day 13 weeks

**Ingestion**

Heart

Some positive data exist, but the data are not sufficient for classification

Rat NOAEL 2,500 mg/kg/day 13 weeks

**Ingestion**

Liver | Kidney and/or bladder

Some positive data exist, but the data are not sufficient for classification

Multiple animal species NOAEL 2,500 mg/kg/day 13 weeks

**Ingestion**

Hematopoietic system

Some positive data exist, but the data are not sufficient for classification

Mouse NOAEL 600 mg/kg/day 14 days

**Ingestion**

Endocrine system

Some positive data exist, but the data are not sufficient for classification

Mouse NOAEL 105 mg/kg/day 28 days

**Ingestion**

Immune system

Some positive data exist, but the data are not sufficient for classification

Mouse NOAEL 105 mg/kg/day 4 weeks

### Aspiration Hazard

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>Aspiration hazard</td>
</tr>
</tbody>
</table>

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**

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Nbr</th>
<th>Organism</th>
<th>Type</th>
<th>Exposure</th>
<th>Test endpoint</th>
<th>Test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>Green Algae</td>
<td>Experimental</td>
<td>72 hours</td>
<td>EC50</td>
<td>12.5 mg/l</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>Coho Salmon</td>
<td>Experimental</td>
<td>96 hours</td>
<td>LC50</td>
<td>5.5 mg/l</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>Water flea</td>
<td>Experimental</td>
<td>48 hours</td>
<td>EC50</td>
<td>3.78 mg/l</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>Sheepshead Minnow</td>
<td>Experimental</td>
<td>28 days</td>
<td>NOEC</td>
<td>3.2 mg/l</td>
</tr>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>13463-67-7</td>
<td>Sheepshead Minnow</td>
<td>Experimental</td>
<td>96 hours</td>
<td>LC50</td>
<td>&gt;240 mg/l</td>
</tr>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>13463-67-7</td>
<td>Water flea</td>
<td>Experimental</td>
<td>48 hours</td>
<td>EC50</td>
<td>&gt;100 mg/l</td>
</tr>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>13463-67-7</td>
<td>Water flea</td>
<td>Experimental</td>
<td>30 days</td>
<td>NOEC</td>
<td>3 mg/l</td>
</tr>
</tbody>
</table>
### 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Nbr</th>
<th>Test type</th>
<th>Duration</th>
<th>Study Type</th>
<th>Test result</th>
<th>Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>Experimental Photolysis</td>
<td>Photolytic half-life (in air)</td>
<td>5.38 days (t/1/2)</td>
<td>Other methods</td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>Experimental Biodegradation</td>
<td></td>
<td>14 days</td>
<td>BOD</td>
<td>100 % weight</td>
</tr>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>Data not available or insufficient for classification</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>NUC - Titanium Dioxide</td>
<td>13463-67-7</td>
<td>Data not available or insufficient for classification</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>3,3'-Oxybis(ethylen oxo)bis(propylamine)</td>
<td>4246-51-9</td>
<td>Estimated Biodegradation</td>
<td></td>
<td>28 days</td>
<td>BOD</td>
<td>12.6 % weight</td>
</tr>
<tr>
<td>Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethylen oxo)bis(propylamine)</td>
<td>68911-25-1</td>
<td>Data not available or insufficient for classification</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### 12.3 : Bioaccumulative potential

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Nbr</th>
<th>Test type</th>
<th>Duration</th>
<th>Study Type</th>
<th>Test result</th>
<th>Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>Experimental Bioconcentrati on</td>
<td>Log Kow</td>
<td></td>
<td>2.73</td>
<td>Other methods</td>
</tr>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>Data not available or</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
12.4. Mobility in soil
Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment
No information available at this time, contact manufacturer for more details

12.6. Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
See Section 11.1 Information on toxicological effects

Dispose of completely cured (or polymerised) 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.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

EU waste code (product as sold)
08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances
20 01 27* Paint, inks, adhesives and resins containing dangerous substances

SECTION 14: Transportation information

ADR: Not restricted for transport.
IMDG: Not restricted for transport.
IATA: Not restricted for transport.

**SECTION 15: Regulatory information**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

<table>
<thead>
<tr>
<th>Carcinogenicity</th>
<th>Ingredient</th>
<th>CAS Nbr</th>
<th>Classification</th>
<th>Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NUC - Titanium Dioxide</td>
<td>13463-67-7</td>
<td>Grp. 2B: Possible human carc.</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td></td>
<td>Toluene</td>
<td>108-88-3</td>
<td>Gr. 3: Not classifiable</td>
<td>International Agency for Research on Cancer</td>
</tr>
</tbody>
</table>

Global inventory status
Contact 3M for more information.

15.2. Chemical Safety Assessment
Not applicable

**SECTION 16: Other information**

List of relevant H statements

- **H225**: Highly flammable liquid and vapour.
- **H304**: May be fatal if swallowed and enters airways.
- **H314**: Causes severe skin burns and eye damage.
- **H315**: Causes skin irritation.
- **H317**: May cause an allergic skin reaction.
- **H318**: Causes serious eye damage.
- **H319**: Causes serious eye irritation.
- **H336**: May cause drowsiness or dizziness.
- **H361d**: Suspected of damaging the unborn child.
- **H373**: May cause damage to organs through prolonged or repeated exposure.
- **H412**: Harmful to aquatic life with long lasting effects.

Revision information:
Section 2: Indication of danger information information was deleted.
Label: Graphic Text information was deleted.
Label: Graphic information was deleted.
Section 2: Label ingredient information information was deleted.
Section 2: R phrase reference information was deleted.
Risk phrase information was deleted.
Safety phrase information was deleted.
Section 3: Composition/ Information of ingredients table information was added.
Section 3: Composition/ Information of ingredients table information was deleted.
Section 3: Reference to H statement explanation in Section 016 information was added.
Section 3: Reference to R and H statement explanation in Section 16 information was deleted.
Section 3: Reference to section 15 for Nota info information was deleted.
Section 8: Occupational exposure limit table information was modified.
Section 9: Property description for optional properties information was added.
Section 9: Property description for optional properties information was deleted.
Section 11: Acute Toxicity table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12: Biocumulative potential information information was modified.  
Section 16: List of relevant R phrase information information was deleted.  
Section 16: List of relevant R-phrases information was deleted.  
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was modified.

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