3M Glass Bubbles, Types K and S

Safety Data Sheet

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Document group: 10-4832-9 Version number: 15.07
Revision date: 08/05/2012 Supersedes date: 13/10/2011
Transportation version number: 1.00 (13/01/2011)

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 Glass Bubbles, Types K and S

Product identification numbers
98-0212-3033-1 FS-9100-0397-9 FS-9100-0398-7 FS-9100-0410-0 FS-9100-0411-8
FS-9100-0882-0 FS-9100-1313-5 FS-9100-1831-6 FS-9100-2037-9 FS-9100-2330-8
FS-9100-2711-9 FS-9100-3346-3 FS-9100-3452-9 FS-9100-4216-7

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

Identified uses
Lightweight Filler

1.3. Details of the supplier of the substance or mixture
Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
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

Dangerous substances (67/548/EEC)/preparations (1999/45/EC) directive

This product is not classified as hazardous according to EU Directive 1999/45/EC.

2.2. Label elements

Dangerous substances (67/548/EEC)/preparations (1999/45/EC) directive
3M Glass Bubbles, Types K and S

Symbols None.

Contains:

No ingredients are assigned to the label.

Risk phrases None.
Safety phrases None.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Nbr</th>
<th>EU Inventory</th>
<th>% by Wt</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass, oxide, chemicals</td>
<td>65997-17-3</td>
<td>EINECS 266-046-0</td>
<td>97 - 100</td>
<td></td>
</tr>
<tr>
<td>Synthetic crystalline-free gel</td>
<td>112926-00-8</td>
<td></td>
<td>&lt; 3</td>
<td></td>
</tr>
</tbody>
</table>

Please see section 16 for the full text of any R phrases and H statements referred to in this section.
Please refer to section 15 for the any applicable Notas that have been applied to the above components.

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

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

Skin contact
Wash with soap and water. If signs/symptoms develop, get medical attention.

Inhalation
Remove person to fresh air. If you feel unwell, 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
Material will not burn.

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

5.3. Advice for fire-fighters  
No unusual fire or explosion hazards are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures  
Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Ventilate the area with fresh air.

6.2. Environmental precautions  
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up  
Vacuum or sweep up. Warning: A motor could be an ignition source and cause flammable gases or vapours or dust in the spill area to burn or explode. Collect as much of the spilled material as possible. Clean up residue. Place in a closed container approved for transportation by appropriate authorities. 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  
Avoid breathing dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. For industrial or professional use only.

7.2. Conditions for safe storage including any incompatibilities  
No special storage requirements.

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

<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>Silica, amorphous</td>
<td>112926-00-8</td>
<td>Health and Safety Comm. (UK)</td>
<td>TWA(as inhalable dust):6 mg/m³; TWA(as respirable dust):2.4 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Glass filaments</td>
<td>65997-17-3</td>
<td>Health and Safety Comm. (UK)</td>
<td>TWA(as fiber):5 mg/m³(1 fibers/ml)</td>
<td></td>
</tr>
<tr>
<td>Glass, oxide, chemicals</td>
<td>65997-17-3</td>
<td>Manufacturer determined</td>
<td>TWA(as dust):10 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Health and Safety Comm. (UK) · UK Health and Safety Commission  
TWA: Time-Weighted-Average  
STEL: Short Term Exposure Limit  
ppm: parts per million  
mg/m³: milligrams per cubic metre  
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/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

The following eye protection(s) are recommended: Safety glasses with side shields.

Skin/hand protection

Gloves made from the following material(s) are recommended: Neoprene.
Nitrile rubber.

Respiratory protection

Select one of the following approved respirators based on airborne concentration of contaminants and in accordance with regulations:
Half facempiece or full facepiece air-purifying respirator suitable for particulates

<table>
<thead>
<tr>
<th>SECTION 9: Physical and chemical properties</th>
</tr>
</thead>
</table>

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Solid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Physical Form:</td>
<td>Low density fine powder (&lt; 100 microns)</td>
</tr>
<tr>
<td>Appearance/ Odour</td>
<td>white, odourless</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Boiling point/boiling range</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<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>Not applicable.</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>Not applicable.</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>0.12 - 0.63</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water solubility</th>
<th>Negligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

| Viscosity | Not applicable. |
| Density | 0.12 g/ml - 0.63 g/ml |

9.2. Other information

| Volatile organic compounds (VOC) | Not applicable. |
| Percent volatile | < 0.5 % weight |
| VOC less H2O & exempt solvents | Not applicable. |
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
None known.

10.5 Incompatible materials
None known.

10.6 Hazardous decomposition products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known.</td>
<td>Not specified.</td>
</tr>
</tbody>
</table>

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 labelling, 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:

Eye contact
Contact with the eyes during product use is not expected to result in significant irritation. Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

Skin contact
Contact with the skin during product use is not expected to result in significant irritation. Mechanical skin irritation: Signs/symptoms may include abrasion, redness, pain, and itching.

Inhalation
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

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

Toxicological Data
### Acute Toxicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall product</td>
<td>Ingestion</td>
<td></td>
<td>No test data available; calculated ATE 2,500 mg/kg</td>
</tr>
<tr>
<td>Glass, oxide, chemicals</td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Synthetic crystalline-free gel</td>
<td></td>
<td></td>
<td>No data available</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>Glass, oxide, chemicals</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Synthetic crystalline-free gel</td>
<td></td>
<td>No data available</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>Glass, oxide, chemicals</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Synthetic crystalline-free gel</td>
<td></td>
<td>No data available</td>
</tr>
</tbody>
</table>

### Skin Sensitisation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass, oxide, chemicals</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Synthetic crystalline-free gel</td>
<td></td>
<td>No data available</td>
</tr>
</tbody>
</table>

### Respiratory Sensitisation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass, oxide, chemicals</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Synthetic crystalline-free gel</td>
<td></td>
<td>No data available</td>
</tr>
</tbody>
</table>

### Germ Cell Mutagenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass, oxide, chemicals</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Synthetic crystalline-free gel</td>
<td></td>
<td>No data available</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>Glass, oxide, chemicals</td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Synthetic crystalline-free gel</td>
<td></td>
<td></td>
<td>No data available</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>Glass, oxide, chemicals</td>
<td></td>
<td>No data available</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synthetic crystalline-free gel</td>
<td></td>
<td>No data available</td>
<td></td>
<td></td>
<td></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>Glass, oxide, chemicals</td>
<td>Inhalation</td>
<td>respiratory irritation</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 3M Glass Bubbles, Types K and S

<table>
<thead>
<tr>
<th>Synthetic crystalline-free gel</th>
<th>No data available</th>
</tr>
</thead>
</table>

#### Specific Target Organ Toxicity - repeated exposure

<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>Glass, oxide, chemicals</td>
<td></td>
<td>No data available</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synthetic crystalline-free gel</td>
<td></td>
<td>No data available</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Aspiration Hazard

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass, oxide, chemicals</td>
<td>Not an aspiration hazard</td>
</tr>
<tr>
<td>Synthetic crystalline-free gel</td>
<td>Not an 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 be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

#### 12.1. Toxicity

**Acute aquatic hazard:**
Not acutely toxic to aquatic life by GHS criteria.

**Chronic aquatic hazard:**
Not chronically toxic to aquatic life by GHS criteria.

No product test data available.
No component test data available.

#### 12.2. Persistence and degradability

No test data available.

#### 12.3: Bioaccumulative potential

No test data available.

#### 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
Dispose of contents/container in accordance with the local/regional/national/international regulations

Incinerate in a permitted waste incineration facility.

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)
101112 Waste glass other than those mentioned in 10 11 11

SECTION 14: Transportation information


Not hazardous for transportation

SECTION 15: Regulatory information

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

Global inventory status
All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. Contact 3M for more information. The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. The components of this product are in compliance with the chemical notification requirements of TSCA.

15.2. Chemical Safety Assessment
Not applicable

SECTION 16: Other information

Revision information:
Revision Changes:
Section 8: Respiratory protection - recommended respirators information was modified.
Section 3: Composition/Information of ingredients table was modified.
Copyright was modified.
Aspiration Hazard Table was modified.
Section 11: Acute Toxicity table was modified.
Carcinogenicity Table was modified.
Serious Eye Damage/Irritation Table was modified.
Germ Cell Mutagenicity Table was modified.
Skin Sensitisation Table was modified.
Respiratory Sensitisation Table was modified.
Reproductive Toxicity Table was modified.
Skin Corrosion/Irritation Table was modified.
Target Organs - Repeated Table was modified.
Target Organs - Single Table was modified.
Section 11: Health Effects - Skin information was modified.
Section 13: Standard Phrase Category Waste GHS was modified.
Section 11: UN GHS Classification table heading 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