



Safety Data Sheet

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|------------------------|-----------|-------------------------|----------|
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SECTION 1: Identification

1.1. Product identifier

3M™ Glass Bubbles, Types A and D

1.2. Recommended use and restrictions on use

Recommended use

Lightweight Filler

1.3. Supplier's details

| | |
|----------------------|---|
| MANUFACTURER: | 3M |
| DIVISION: | Advanced Materials Division |
| ADDRESS: | 3M Center, St. Paul, MN 55144-1000, USA |
| Telephone: | 1-888-3M HELPS (1-888-364-3577) |

1.4. Emergency telephone number

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

SECTION 2: Hazard identification

2.1. Hazard classification

Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

2.2. Label elements

Signal word

Not applicable.

Symbols

Not applicable.

Pictograms

Not applicable.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|------------------------------|------------|---------|
| Soda Lime Borosilicate Glass | 65997-17-3 | > 99 |

| | | |
|--|-------------|-----|
| Chromium, Aqua Chloro Hydroxy Methacrylate Complexes | 111031-82-4 | < 1 |
|--|-------------|-----|

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:

Wash with soap and water. 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. Suitable extinguishing media

Material will not burn. Non-combustible. Use a fire fighting agent suitable for surrounding fire.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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.

6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Use wet sweeping compound or water to avoid dusting. Sweep up. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible 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. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

8.2. Exposure controls

8.2.1. Engineering controls

Provide local exhaust ventilation at transfer points. 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:

Safety Glasses with side shields

Skin/hand protection

No chemical protective gloves are required.

Respiratory protection

Wear respiratory protection if ventilation is inadequate to prevent overexposure. 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 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

| | |
|--------------------------------|---|
| General Physical Form: | Solid |
| Specific Physical Form: | Low Density Fine Powder (< 200 microns) |
| Odor, Color, Grade: | White, Odorless |
| Odor threshold | <i>Not Applicable</i> |
| pH | <i>Not Applicable</i> |
| Melting point | <i>No Data Available</i> |

| | |
|--|------------------------------|
| Boiling Point | <i>Not Applicable</i> |
| Flash Point | <i>Not Applicable</i> |
| Evaporation rate | <i>Not Applicable</i> |
| Flammability (solid, gas) | Not Classified |
| Flammable Limits(LEL) | <i>Not Applicable</i> |
| Flammable Limits(UEL) | <i>Not Applicable</i> |
| Vapor Pressure | <i>Not Applicable</i> |
| Vapor Density | <i>Not Applicable</i> |
| Density | 0.1 - 0.6 g/cm ³ |
| Specific Gravity | 0.1 - 0.6 [Ref Std: WATER=1] |
| Solubility in Water | Negligible |
| Solubility- non-water | <i>Not Applicable</i> |
| Partition coefficient: n-octanol/ water | <i>No Data Available</i> |
| Autoignition temperature | <i>Not Applicable</i> |
| Decomposition temperature | <i>Not Applicable</i> |
| Viscosity | <i>Not Applicable</i> |
| Molecular weight | <i>No Data Available</i> |
| Volatile Organic Compounds | <i>Not Applicable</i> |
| Percent volatile | < 0.5 % weight |
| Softening point | >=600 °C |
| VOC Less H₂O & Exempt Solvents | <i>Not Applicable</i> |

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 polymerization will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|--------------------|
| Oxides of Sulfur | If Breakage Occurs |

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:

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

Skin Contact:

Mechanical Skin irritation: Signs/symptoms may include abrasion, redness, pain, and itching.

Eye Contact:

Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

Ingestion:

May be harmful if swallowed.

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

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

| Name | Route | Species | Value |
|------------------------------|-----------|---------|--|
| Overall product | Ingestion | | No data available; calculated ATE2,000 - 5,000 mg/kg |
| Soda Lime Borosilicate Glass | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Soda Lime Borosilicate Glass | Ingestion | | LD50 estimated to be 2,000 - 5,000 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|------------------------------|------------------------|---------------------------|
| Soda Lime Borosilicate Glass | Professional judgement | No significant irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|------------------------------|------------------------|---------------------------|
| Soda Lime Borosilicate Glass | Professional judgement | No significant irritation |

Skin Sensitization

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

Respiratory Sensitization

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

Germ Cell Mutagenicity

| Name | Route | Value |
|------------------------------|----------|--|
| Soda Lime Borosilicate Glass | In Vitro | Some positive data exist, but the data are not sufficient for classification |

Carcinogenicity

| Name | Route | Species | Value |
|------------------------------|------------|-------------------------|--|
| Soda Lime Borosilicate Glass | Inhalation | Multiple animal species | Some positive data exist, but the data are not sufficient for classification |

Reproductive Toxicity**Reproductive and/or Developmental Effects**

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

Target Organ(s)**Specific Target Organ Toxicity - single exposure**

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

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|------------------------------|------------|--------------------|----------------|---------|---------------------|-----------------------|
| Soda Lime Borosilicate Glass | Inhalation | respiratory system | Not classified | Human | NOAEL not available | occupational exposure |

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.

EPA Hazardous Waste Number (RCRA): Not regulated

SECTION 14: Transport Information

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

Not applicable

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

This product is an article as defined by TSCA regulations, and is exempt from TSCA Inventory listing requirements.

This product complies with the New Zealand Hazardous Substances and New Organisms Act (1996).

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

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

SECTION 16: Other information

NFPA Hazard Classification

Health: 1 Flammability: 0 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: 1 Flammability: 0 Physical Hazard: 0 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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Transport Information Document

Date: March 27, 2019

3M ID Number: 70-0704-8395-6

Product Description: 3M(TM) Glass Bubbles A16/500, 1 gal container (.5 lb, .2 kg)

Transport Protective Service: PROTECTIVE SERVICE NOT REQUIRED

NMFC Item: 087660 NMFC Sub: 05 NMFC Class: 150.0

Flash Point (Closed-cup): No Flash Point

| UNITED STATES DEPARTMENT OF TRANSPORTATION - GROUND (U.S. DOT, 49 CFR) |
|--|
| NOT REGULATED |

| UNITED STATES DEPARTMENT OF TRANSPORTATION - VESSEL (U.S. DOT, 49 CFR) |
|--|
| NOT REGULATED |

| INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA) |
|--|
| NOT REGULATED |

| INTERNATIONAL MARITIME ORGANIZATION (IMO) |
|---|
| NOT REGULATED |

The classification is authorized by the Competent Authority of the United States of America and may not meet the requirements of other competent authorities.

These transportation classifications are provided as a customer service. AS THE SHIPPER YOU REMAIN RESPONSIBLE FOR COMPLYING WITH ALL THE APPLICABLE LAWS AND REGULATIONS, INCLUDING PROPER TRANSPORTATION CLASSIFICATION AND PACKAGING. 3M's transportation classifications are based on product formulations, packaging, 3M policies and 3M's understanding of applicable current regulations and is valid for the original 3M package only. 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.

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



Transport Information Document

Date: March 27, 2019

3M ID Number: 75-5410-0014-9

Product Description: 3M(TM) Glass Bubbles A16/500, Small box (10 lb, 4.5 kg)

Transport Protective Service: PROTECTIVE SERVICE NOT REQUIRED

NMFC Item: 087660 NMFC Sub: 05 NMFC Class: 150.0

Flash Point (Closed-cup): No Flash Point

UNITED STATES DEPARTMENT OF TRANSPORTATION - GROUND (U.S. DOT, 49 CFR)

NOT REGULATED

UNITED STATES DEPARTMENT OF TRANSPORTATION - VESSEL (U.S. DOT, 49 CFR)

NOT REGULATED

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA)

NOT REGULATED

INTERNATIONAL MARITIME ORGANIZATION (IMO)

NOT REGULATED

The classification is authorized by the Competent Authority of the United States of America and may not meet the requirements of other competent authorities.

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



Transport Information Document

Date: March 27, 2019

3M ID Number: 75-0299-0514-0

Product Description: 3M(TM) Glass Bubbles A16/500, Small box (50 lb, 23 kg)

Transport Protective Service: PROTECTIVE SERVICE NOT REQUIRED

NMFC Item: 087660 NMFC Sub: 05 NMFC Class: 150.0

Flash Point (Closed-cup): No Flash Point

| UNITED STATES DEPARTMENT OF TRANSPORTATION - GROUND (U.S. DOT, 49 CFR) |
|--|
| NOT REGULATED |

| UNITED STATES DEPARTMENT OF TRANSPORTATION - VESSEL (U.S. DOT, 49 CFR) |
|--|
| NOT REGULATED |

| INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA) |
|--|
| NOT REGULATED |

| INTERNATIONAL MARITIME ORGANIZATION (IMO) |
|---|
| NOT REGULATED |

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