



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Minister of Industry Decree No. 23/M-IND/PER/4/2013 and GHS Classification 4th Edition.

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SECTION 1: Identification

1.1. Product identifier

3M™ Glass Bubbles iM16K

Product Identification Numbers

11-0033-1233-4	98-0212-3647-0	98-0212-3648-8	98-0212-3649-6	98-0212-3650-4
98-0213-2796-4	98-0213-3031-5	98-0213-3836-7	FS-9100-5432-9	HB-0042-7397-3
HB-0042-7444-3	HB-0042-7445-0	HC-0006-4012-4	HC-0006-4013-2	HC-0006-4014-0
HC-0006-4065-2	JF-1000-4249-4	JF-1000-4483-9	UU-0015-9953-7	UU-0091-6518-2
WF-6001-1886-4	WF-6001-1887-2	WF-6009-0880-1	WF-6009-0891-8	WF-6009-0892-6
WF-6009-0893-4	WF-6009-1022-9	WF-6009-1125-0	WF-6009-1126-8	WF-6009-1556-6

1.2. Recommended use and restrictions on use

Recommended use

Lightweight Filler

1.3. Supplier's details

ADDRESS: PT 3M Indonesia , Perkantoran Hijau Arkadia, Menara F, Lt. 8. Jl. TB. Simatupang Kav. 88, Jakarta Selatan, 12520, Indonesia

Telephone: +6221-29974000

Website: https://www.3m.co.id/3M/en_ID/company-id/

1.4. Emergency telephone number

(021)29974000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Acute Toxicity (oral): Category 5.

2.2. Label elements

Signal word

Warning

Symbols

Not applicable

Pictograms

Not applicable

HAZARD STATEMENTS:

H303 May be harmful if swallowed.

2.3. Other hazards

None known

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Soda Lime Borosilicate Glass	65997-17-3	97 - 100
Synthetic Amorphous Crystalline-Free Silica	7631-86-9	< 3

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

No critical symptoms or effects. 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

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. Observe precautions from other sections.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. 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**

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.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
GLASS FILAMENTS	65997-17-3	Indonesia OELs	TWA(inhalable particulates)(8 hours):10 mg/m ³ ;TWA(as dust)(8 hours):10 mg/m ³ ;TWA(8 hours):5 mg/m ³	
Soda Lime Borosilicate Glass	65997-17-3	Manufacturer determined	TWA(as non-fibrous, respirable)(8 hours):3 mg/m ³ ;TWA(as non-fibrous, inhalable fraction)(8 hours):10 mg/m ³	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

Indonesia OELs : Indonesia. Minister of Manpower and Transmigration Decree No. 13/MEN/X/2011 concerning Threshold Values, Chemical and Physical Factors in the Workplace.

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls**8.2.1. Engineering controls**

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

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Safety Glasses with side shields

Skin/hand protection

No chemical protective gloves are required.

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 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**

Physical state	Solid
Specific Physical Form:	Low density fine powder (< 100 microns)
Color	White
Odor	Odorless
Odor threshold	<i>Not Applicable</i>
pH	<i>No Data Available</i>
Melting point/Freezing point	<i>No Data Available</i>
Boiling point/Initial boiling point/Boiling range	<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 and/or Relative Vapor Density	<i>Not Applicable</i>
Density	0.1 - 0.6 g/cm ³
Relative Density	0.1 - 0.6 [Ref Std: WATER=1]
Water solubility	Negligible
Solubility- non-water	<i>Not Applicable</i>
Partition coefficient: n-octanol/ water	<i>Not Applicable</i>
Autoignition temperature	<i>Not Applicable</i>
Decomposition temperature	<i>Not Applicable</i>
Viscosity/Kinematic Viscosity	<i>Not Applicable</i>
Volatile Organic Compounds	<i>Not Applicable</i>
Percent volatile	< 0.5 % weight
VOC Less H₂O & Exempt Solvents	<i>Not Applicable</i>
Molecular weight	<i>No Data Available</i>
Softening point	>=600 °C

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**Substance**

Oxides of Sulfur

Condition

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
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

Synthetic Amorphous Crystalline-Free Silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Synthetic Amorphous Crystalline-Free Silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Synthetic Amorphous Crystalline-Free Silica	Ingestion	Rat	LD50 > 5,110 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Soda Lime Borosilicate Glass	Professional judgement	No significant irritation
Synthetic Amorphous Crystalline-Free Silica	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Soda Lime Borosilicate Glass	Professional judgement	No significant irritation
Synthetic Amorphous Crystalline-Free Silica	Rabbit	No significant irritation

Sensitization:

Skin Sensitization

Name	Species	Value
Synthetic Amorphous Crystalline-Free Silica	Human and animal	Not classified

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
Synthetic Amorphous Crystalline-Free Silica	In Vitro	Not mutagenic

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
Synthetic Amorphous Crystalline-Free Silica	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Synthetic Amorphous Crystalline-Free Silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Synthetic Amorphous Crystalline-Free Silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation

Synthetic Amorphous Crystalline-Free Silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
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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
Synthetic Amorphous Crystalline-Free Silica	Inhalation	respiratory system silicosis	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

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 labeling, 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

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
Soda Lime Borosilicate Glass	65997-17-3	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
Soda Lime Borosilicate Glass	65997-17-3	Water flea	Experimental	72 hours	EC50	>1,000 mg/l
Soda Lime Borosilicate Glass	65997-17-3	Zebra Fish	Experimental	96 hours	LC50	>1,000 mg/l
Soda Lime Borosilicate Glass	65997-17-3	Green algae	Experimental	72 hours	NOEC	>=1,000 mg/l
Synthetic Amorphous Crystalline-Free Silica	7631-86-9	N/A	Data not available or insufficient for classification	N/A	N/A	N/A

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Soda Lime Borosilicate Glass	65997-17-3	Data not available or insufficient	N/A	N/A	N/A	N/A
Synthetic Amorphous Crystalline-Free Silica	7631-86-9	Data not available or insufficient	N/A	N/A	N/A	N/A

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Soda Lime Borosilicate Glass	65997-17-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Synthetic Amorphous Crystalline-Free Silica	7631-86-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility.

SECTION 14: Transport Information

Local Regulations

Land Transport: In accordance with Director General of Land Transportation Decree No. SK.725/AJ.302/DRJD/2004 which refer to UN Standard.

Sea Transport: In accordance with Minister of Transportation Decree No. KM 2/2010 which refer to IMDG Code Standard.

International Regulations

UN No.: Not applicable

UN Proper Shipping Name: Not applicable

Transportation Class (IMO): Not applicable

Transportation Class (IATA): Not applicable

Packing Group: Not applicable

Marine Pollutant: Not applicable

SECTION 15: Regulatory information

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

Global inventory status

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 Korea Chemical Control Act. 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.

Local Inventory Status

Addendum I Government Regulation No. 74/2001:

List of Hazardous Substances Approved for Use :

None of the substances are listed as a Hazardous Substance Approved for Use.

Addendum II Government Regulation No. 74/2001:

Tab.1 List of Prohibited Substances for Use:

None of the substances are listed as a Prohibited Substance for Use.

Addendum II Government Regulation No. 74/2001:

Tab.2 List of Restricted Substances for Use:

None of the substances are listed as a Restricted Substance for Use.

Addendum I Ministry of Health Regulation No. 472/1996:

List and Classification of Hazardous Substances for Health:

None of the substances are listed and classified as a Hazardous Substance for Health.

Addendum I Act of Minister of Industry and Trade No. 254/MPP/KEP/2000

List of Hazardous Substances that are Regulated to Import Trade System:

None of the substances are listed and classified as a Hazardous Substance that is Regulated to Import Trade System.

SECTION 16: Other information

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3M Indonesia SDSs are available at https://www.3m.co.id/3M/en_ID/company-id/