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Covers all 'S' Grades

Material Safety Data Sheet

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MSDS ID 10-4852-9 RELEASE DATE: 24/04/02 VERSION : 02.31
SUPERSEDES DATE 06/01/02 PRINTED : 08/05/02 PAGE 1 OF 10

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION

Tradename:

SCOTCHLITE GLASS BUBBLES, TYPES B, K, L, AND S

3M Product ID:

| | | | |
|----------------|----------------|----------------|----------------|
| FS-9100-2614-5 | FS-9100-2363-9 | FS-9100-2889-3 | FS-9100-2888-5 |
| FS-9100-1950-4 | FS-9100-2364-7 | 70-0704-2952-0 | FS-9100-0444-9 |
| FS-9100-1313-5 | FS-9100-0841-6 | FS-9100-0441-5 | FS-9100-0623-8 |
| FS-9100-0835-8 | FS-9000-2590-9 | FS-9000-2572-7 | FS-9100-2711-9 |
| FS-9100-2710-1 | FS-9100-2709-3 | FS-9100-2708-5 | FS-9100-1029-7 |
| FS-9100-0415-9 | FS-9100-2365-4 | FS-9100-1831-6 | FS-9100-2396-9 |
| FS-9100-0839-0 | FS-9100-3346-3 | 41-4202-4323-4 | FS-9100-3452-9 |

2 COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredient name and classification | CAS number | Percentage |
|------------------------------------|------------|---------------|
| SODA LIME BOROSILICATE GLASS | 65997-17-3 | 97.0 - 100.0 |
| AMORPHOUS SILICA | 7631-86-9 | Less Than 3.0 |

3 HAZARDS IDENTIFICATION

Critical hazards:

May cause irritation of eyes, skin and respiratory system.

4 FIRST-AID MEASURES

Eye Contact:

Immediately flush eyes with large amounts of water. Get immediate medical attention.

Skin Contact:

Flush skin with large amounts of water. If irritation persists, get immediate medical attention.



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Inhalation:

If signs or symptoms occur, remove person to fresh air. If signs/symptoms continue, call a medical doctor.

Ingestion:

Drink two glasses of water. Call a medical doctor.

5 FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Does not support combustion. Choose material suitable for surrounding fire.

Exposure Hazards:

No unusual fire or explosion hazards are anticipated.

Fire-Fighting Procedures:

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, tunic and trousers (leggings), bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Observe precautions from other sections.

Methods for Cleaning up:

Ventilate the area with fresh air. Collect as much of the spilled material as possible. Collect spilled material using a vacuum cleaner, such as the 3M Brand Model SV - 497 - AJM, with a High Efficiency Particulate Air (HEPA) filter. WARNING ! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Clean up residue. Place in a closed container approved for transportation by appropriate authorities. Avoid contact with water.

7 HANDLING AND STORAGE

Precautions for Safe Storage:

Avoids contact with water to prevent potentially violent reaction or fire. Keep container closed when not in use.

Fire Prevention:

Not applicable.

Explosion Prevention:

Non-flammable: ordinary combustible material.

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Precautions for Safe Handling:

Please refer to other sections of this MSDS.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection:

Avoid eye contact. The following should be worn to prevent eye contact: Indirect vented goggles safety glasses with side shields.

Hand Protection:

Wear appropriate gloves when handling this material. A pair of gloves made from the following material(s) are recommended: Neoprene, Nitrile rubber. Polyethylene/polyvinylidene chloride.

Skin Protection:

Avoid prolonged or repeated skin contact. Use the following personal protection item(s) as necessary to prevent skin contact: Apron. Overalls.

Respiratory Protection:

Avoid inhalation of dust. Select one of the following approved respirators based on airborne concentration of contaminants and in accordance with regulations: Half-mask dust and mist respirator, Full-face dust and mist respirator. Full-face supplied air respirator.

Ingestion:

Wash hands after handling and before eating.

Recommended Ventilation:

Provide appropriate local exhaust ventilation at transfer points. Provide sufficient ventilation to maintain emissions below recommended exposure limits. If exhaust ventilation is not adequate, use appropriate respiratory protection.

SODA LIME BOROSILICATE GLASS (65997-17-3)

Exposure Limits:

UK HSE TWA: 0.15 mg/m³ (as Pb) MEL

3M TWA Exposure Limit: 10 mg/m³ as dust

AMORPHOUS SILICA (7631-86-9)

Exposure Limits:

UK HSE TWA: 6 mg/m³ Total inhalable dust; 3 mg/m³ Respirable dust
OES

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odour:

Solid white low density fine powder (between 10 and 170um diameter) odourless



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| | |
|------------------------------|------------------|
| pH: | BASIC |
| Boiling point/boiling range: | Not applicable |
| Melting point/melting range: | Not determined |
| Flash point: | Not applicable |
| Autoflammability: | Not applicable |
| Vapour pressure: | Not applicable |
| Water Solubility: | Slight |
| Specific gravity: | 0.12 - 0.63 g/cc |
| Vapour density: | Not applicable |
| Volatile organic compounds: | Not applicable |
| Evaporation rate: | Not applicable |
| Viscosity: | Not applicable |
| Percent volatile: | 0.5 % by wt |

10 STABILITY AND REACTIVITY

Materials to Avoid:

None known.

Hazardous Decomposition:

None known.

11 TOXICOLOGICAL INFORMATION

Effects from Eye Contact:

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

Effects from Skin Contact:

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

Effects from Inhalation:

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

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Effects from Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhoea and vomiting.

12 ECOLOGICAL INFORMATION

Other Effects and Information:

Not determined.

13 DISPOSAL CONSIDERATIONS

Special Instructions:

Dispose of waste product in a landfill/waste disposal site.
Disposal alternative: As a disposal alternative, incinerate in an industrial or commercial facility in the presence of a combustible material. Since regulations vary, consult applicable regulations or authorities before disposal.

14 TRANSPORT INFORMATION

UN NUMBER:

UN number: Not restricted for transportation.

UK ROAD/SEA FREIGHT (IMO) CLASSIFICATION:

Substance Identification Number:

Class:

Packing Group:

Proper Shipping Name:

CDG-ROAD (if applicable)

ADR/RID CLASSIFICATION:

Class:

Item Number:

ICAO/IATA CLASSIFICATION:

Class:

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Sub-Risk:

Packing Group:

Proper Shipping Name:

15 REGULATORY INFORMATION

Symbol(s):

None

Risk Phrases:

May cause irritation of eyes, skin and respiratory system.

Safety Phrases:

Do not breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid eye and skin contact with dusts. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash with soap and water. If inhaled, provide fresh air.

16 OTHER INFORMATION

Regulatory Information:

The following UK Regulations as amended may affect the product as supplied:
The Chemicals (Hazard Information and Packaging for supply) Regulations, as amended.
The Carriage of Dangerous Goods (Classification, Packaging and Labelling) and use of Transportable Pressure Receptacles Regulations 1996, as amended.
Carriage of Dangerous Goods by Road Regulations, 1996, as amended.
The Petroleum (Consolidation) Act 1928.
The Control of Substances Hazardous to Health Regulations 1999 as amended.
The Special Waste Regulations 1996, as amended.
The Environmental Protection Act, 1990 The Health and Safety at Work Act, 1974.

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3M

Reissue date/Reason for reissue.

Added 3M ID stock number.

Intended Use of Product:

Scotchlite Glass Bubbles are a lightweight, high - strength engineering filler.

The information on this 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.