



SAFETY DATA SHEET

SDS Review Date: May 2017

E-SPHERES®

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

- 1.1 Identification of the Product:** E-SPHERES
- 1.2 UN Proper Shipping Name:** None Allocated.
- 1.3 Recommended Use:** Lightweight inert filler.
- 1.4 Supplier:** **Envirospheres Pty Ltd**
PO Box 497, Lindfield NSW 2070 Australia
- 1.5 ABN:** 93 077 898 849
- 1.6 Telephone:** (+61 2) 9416 5644
- 1.7 Fax:** (+61 2) 9416 1718
- 1.8 Emergency Telephone Number:** (+61 2) 9416 5644
- 1.9 E-mail:** info@envirospheres.com
- 1.10 Website:** www.envirospheres.com

2. HAZARDS IDENTIFICATION

- 2.1 Hazard Classification:** Non-hazardous Substance. Non-dangerous goods.
- 2.2 Risk Phrase(s):** None Allocated.
- 2.3 Safety Phrase(s):** None Allocated.

3. COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Appearance:** SL Series – fine white powder, no odour. ES Series – fine grey/tan powder, no odour.
- 3.2 Ingredients:** Hollow alumino silicate spheres approximately 20 – 500 microns in diameter. The material contains the following inseparable (non-hazardous) phases:

Chemical Name	CAS Number	Proportion
Amorphous alumino silicate	1327-36-2	65 - 85%
Mullite	1302-93-8	20 - 30%
Quartz	14808-60-7	0 - 1%
Calcite	1317-65-3	0 - 5%

Ingredients determined not to be hazardous to 100%.

Quartz is at or less than the analytical detection limit for XRD analysis (less than 1%).
Any quartz is fused into the ceramic matrix and hence it is not biologically available.
The spheres are inert and do not leach detectable levels of heavy metals.

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

4. FIRST AID MEASURES

4.1 Description of Necessary First Aid Measures:

- Ingestion:** Drink water, do not induce vomiting.
Eye: Flush continuously with water for 15 minutes, eyelids to be held open, do not rub eyes.
Skin: If skin becomes irritated remove clothing, wash areas of contact with soap and water.
Using a skin cream or lotion may be helpful in reducing irritation.
Inhalation: Remove exposed person to fresh air.

4.2 Medical Attention and Special Treatment:

- First Aid Facilities:** None should be required.
Comments: Treat according to person's condition and specifics of exposure.
Advice to Doctor: Treat symptomatically for irritant effects.

5. FIRE FIGHTING MEASURES

- 5.1 Suitable Extinguishing Media:** Not applicable. Material not combustible.
5.2 Hazards from Combustion Products: Not applicable. Material not combustible.
5.3 Precautions for Fire Fighters and Special Protective Equipment: Not applicable. Material not combustible.
5.4 Hazchem Code: Not applicable.

NFPA Hazard Codes: HEALTH: 1 FIRE: 0 REACTIVITY: 0
UNUSUAL REACTION HAZARD: None.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Emergency Procedures:** None required.
6.2 Methods and Materials for Containment and Clean Up Procedures: Shovel up bulk, use vacuum cleaner to clean up residues. Laws and regulations may apply to releases and disposal of this material. You will need to determine which local laws and regulations are applicable.

7. HANDLING AND STORAGE

- 7.1 Precautions for Safe Handling:** Where possible use local exhaust ventilation.
7.2 Conditions for Safe Storage: Keep dry. No special storage requirements.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 National Exposure Standards: No value assigned for this specific material. Recommended values:
10 mg/m³ Particulates Not Otherwise Classified (ACGIH: American Conference of Governmental Industrial Hygienists).

8.2 Biological Limit Values: No biological limit allocated.

8.3 Engineering Controls: Where possible use local exhaust ventilation.

8.4 Personal Protective Equipment:

OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, DUST MASK

Avoid skin and eye contact and inhalation of dust. Wear overalls, safety glasses and impervious gloves. Gloves made from the following materials are recommended: neoprene, nitrile rubber, polyethylene/polyvinylidene chloride. Avoid generating and inhaling dusts. If dust exists, wear NIOSH approved respirator based on airborne concentration of contaminants and in accordance with OSHA regulations. Wash contaminated clothing and other protective equipment before storage or reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Description/Properties:

Physical Form, colour and odour:	Fine white/grey powder, no odour.
Vapour Pressure:	Not applicable.
Boiling Point:	Not applicable.
Melting Point:	1200° - 1400°C
Solubility in Water:	Insoluble.
Specific Gravity @ 25°C:	0.75 – 0.95
Flash Point:	Not applicable.
Lower Flammability Limit:	Not applicable.
Upper Flammability Limit:	Not applicable.
Auto ignition temperature:	Not applicable.

10. STABILITY AND REACTIVITY

10.1 Chemical Stability:	Stable.
10.2 Conditions to Avoid:	None known.
10.3 Incompatible Materials:	Can react with strong oxidisers.
10.4 Hazardous Decomposition Products:	None known.
10.5 Hazardous Reactions:	Hazardous polymerisation will not occur.



11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Material Safety Data Sheet and the product label. Symptoms that may arise if the product is mishandled and overexposure occurs are:

11.1 Likely Route of Exposure: Inhalation Skin Contact Ingestion

11.2 Health Effects from Likely Routes of Exposure:

Acute:

Ingestion:	If ingested in sufficient quantity may cause temporary gastric irritation.
Eye:	Physical irritation. Abrasive action may cause damage to outer surface of the eye.
Skin:	May cause irritation and inflammation due to defatting or mechanical action.
Inhalation:	Irritation to nose, throat and upper respiratory tract.

Chronic: None expected from very low concentration of quartz.

No LD50 data available for product.

E-SPHERES consist of amorphous and poorly crystalline alumino silicates with a very low crystalline silica content. They are inert and do not leach detectable levels of heavy metals. In line with evidence from other naturally occurring non-fibrous alumino silicates, if dust exposures are kept below the exposure standard, no long-term health or toxic effects such as pneumoconiosis or cancer are expected.

The above listed potential effects of overexposure are based on actual data, the results of studies performed upon similar compositions, component data, and/or expert review of the products.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity: No adverse effects on aquatic organisms are predicted.
Bioaccumulation: No bioaccumulation potential.

12.2 Environmental Fate and Distribution: Not soluble in water. It will adhere to soil or sediments.

12.3 Fate and Effects in Waste Water Treatment Plants: No adverse effects on bacteria are predicted.

U.S. EPA Hazardous Waste Number: None (Not U.S. EPA Hazardous).

13. DISPOSAL CONSIDERATIONS

13.1 Disposal Method: Waste should be placed in containers, plastic bags or other methods which prevent dust emission, and disposed of in accordance with the local waste disposal authority requirements.

13.2 Special Precautions for Landfill or Incineration: None known.



14. TRANSPORT INFORMATION

14.1 UN Number:	None allocated.
14.2 UN Proper Shipping Number:	None allocated.
14.3 Dangerous Goods (Class and Subs Risk):	None allocated.
14.4 Special Precautions for User:	Not applicable.
14.5 Hazchem Code:	Not applicable.

15. REGULATORY INFORMATION

15.1 SUSDP Poisons Schedule Number: None allocated.

This product is an article as defined by TSCA, EINECS, CDSL, MITI, KECI, AICS, PICCS and CICS regulations, and is exempt from chemical inventory listing requirements.

16. OTHER INFORMATION

Date of Last Revision: April 2013

Contact Points Technical Manager (+61 2) 9416 5644

E-SPHERES consist of amorphous and poorly crystalline alumino silicates with a very low crystalline silica (quartz) content. The quartz is fused into the ceramic matrix and hence it is not biologically available. The spheres are inert and do not leach detectable levels of heavy metals. Particle size analysis indicates that 99% of the particles are greater than 20 micron with less than 0.5% being in the respirable size range. The product may contain very low levels of quartz (typically less than 1%). On the basis of findings of increased lung cancer risk in silicotics in some industries (but not in others), IARC has classified quartz as carcinogenic. However, in line with evidence from other naturally occurring non-fibrous alumino silicates that also contain low levels of quartz, if dust exposures are kept below the exposure standard, no long term health or toxic effects such as pneumoconiosis or lung cancer are expected.

Disclaimer: This information is based on our current knowledge and is intended to describe the product for the purpose of health, safety and environmental requirements only. Since Envirospheres Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product.

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