

**E-SPHERES®****1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY****1.1. Product identifier**

Product Name	E-SPHERES®
CAS No.	93924-19-7
EC-No.	300-212-6
REACH Registration Number	01-2119563688-21-0002

1.2. Identified uses of the substance or mixture and uses advised against

Use	Light weight inert filler for industrial applications only
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1.3. Details of the supplier/responsible party

Company	Envirospheres Pty Ltd PO Box 497 Lindfield NSW 2070 Australia www.envirospheres.com
Telephone	+61 2 9416 5644
E-mail	info@envirospheres.com.au

1.4. Emergency telephone number

Emergency telephone number	+61 2 9416 5644 – Australian Eastern Time
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2. HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture**

Classification according to GHS	Not classified as hazardous.
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2.2. Label elements

Pictogram	Not required.
Precautionary statement(s)	This product should be handled with care to avoid dust generation.

2.3. Label elements

Particular information pertaining specific risk for human / environment	This product may generate dust during handling and use.
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3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances

Appearance: - Fine white/grey powder.

Chemical Name	Product Identifier (CAS-No.)	%	GHS Ingredient Classification
Amorphous aluminosilicate	1327-36-2	65 - 85	Not classified
Mullite	1302-93-8	20 - 30	Not classified
Calcite	1317-65-3	0 - 5	Not classified
Quartz	14808-60-7	0 - 1	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372

Full text of H-phrases: see section 16.

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.

4. FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation	Move person to fresh air. If discomfort continues seek medical advice.
Skin contact	Remove contaminated clothing. Wash with plenty of water. Seek medical advice if irritation develops or persists.
Eye contact	Rinse with water immediately. Remove contact lenses if present and easy to remove and continue to rinse. Seek medical attention if irritation persists.
Ingestion	Rinse mouth thoroughly, and seek medical attention if discomfort continues.

4.2. Most important symptoms and effects both acute and delayed

Inhalation	Prolonged exposure may cause irritation
Skin contact	Prolonged exposure may cause skin irritation.
Eye contact	May cause eye irritation.
Ingestion	Symptomatic treatment and seek medical advice in case of prolonged discomfort.

4.3. Indication of any immediate medical attention and special treatment needed

Immediate medical attention	Treat symptomatically.
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5. FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media	The product is not combustible. Choose extinguishing media suitable for surrounding fire.
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5.2. Special hazards arising from the substance or mixture

Fire Hazard	Product is not flammable.
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5.3. Advice for fire fighters

Protective equipment and action	No special requirements. Do not allow run off into drains and water ways.
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6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Emergency personnel	Avoid formation of air borne dust and follow precautions for safe handling described in this safety data sheet. Respiratory protection, gloves and safety glasses must be used in high dust conditions.
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Emergency procedures	If necessary evacuate and ventilate area.
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6.2. Environmental precautions

Environmental precautions	Do not discharge into drains, surface waters or ground waters.
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6.3. Methods and materials for containment and cleaning up

Methods for cleaning up	Avoid dust formation. Scoop up or remove with approved industrial vacuum cleaner, if appropriate wet down using a gentle water spray. Ventilate area and wash spill site if necessary, retaining all contaminated washing water. Place in a closed container and dispose of in accordance with local and national regulations.
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6.4. Reference to other sections

Reference to other sections	See section 8 for personal protection and section 13 for waste disposal.
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7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Safe handling	Wear protective clothing and glasses. Avoid handling which leads to air borne dust formation. Approved and suitable respiratory protection must be used in high dust concentration or suitable air extraction/ventilation must be provided in the work area.
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7.2. Conditions for safe storage, including any incompatibilities

Storage specifications and container requirements

Store in original bags or tightly closed containers in well ventilated area and keep dry.

Do not store near food or drinking water.

7.3. Specific end use(s)

Specific end use

Refer to section 1.2.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Particulates (insoluble or poorly soluble) not otherwise specified, PNOS

Respirable dust fraction: 4 mg/m³ (8-hour TWA)

Inhalable total dust: 10 mg/m³ (8-hour TWA)

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation. Observe occupational exposure limits and minimise risk of inhalation of dust.

Personal protective equipment



Engineering measures

Local exhaust ventilation is recommended to keep dust levels below exposure limits.

Respiratory equipment

Respiratory protection must be used if general dust levels exceed recommended exposure limits.

Hand protection

Protective gloves are recommended.

Eye Protection

Wear dust resistant safety goggles.

Skin protection

Wear suitable protective clothing.

Other protection

Measures should be taken to minimise contact. Provide eye wash station.

Hygiene measures:

Do not eat, drink or smoke when handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance/Physical state

Fine powder

Colour

White or Light Grey.

Odour

No perceptible odour.

Odour threshold

Not applicable.

pH	6 – 8
Melting point	1500 – 1800 °C (2732 – 30 °F)
Boiling point / °C	Not applicable.
Flash point / °C	Not combustible.
Flammability	Non-flammable.
Risk of explosion	Not explosive.
Vapour pressure	Not applicable.
Specific Gravity	0.6 – 1.0
Solubility	Insoluble in water.
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition temperature	No data available.
Viscosity	Not applicable.
Oxidation	Not oxidising.

9.2. Other information

Other information	No information available.
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10. STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity	No specific reactivity hazard associated with this product.
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10.2. Chemical stability

Chemical stability	The product is stable under normal conditions.
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10.3. Possibility of hazardous reactions

Hazardous reactions	None known.
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10.4. Conditions to avoid

Conditions to avoid	No special requirements.
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10.5. Incompatible materials

Materials to avoid	None known.
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10.6. Hazardous decomposition materials

Hazardous decomposition products None under normal conditions.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Information on toxicological acute effects. May cause eye irritation if exposed to large amounts of dust.

Skin irritation may result from physical contact.

Inhalation of high concentrations may cause irritation of the respiratory system.

Information on toxicological chronic effects.

No LD 50 and LC 50 data is available for this product.

E-SPHERES consist of amorphous and poorly crystalline aluminosilicates 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 aluminosilicates, if dust exposures are kept below the exposure standard, no long-term health or toxic effects such as pneumoconiosis or cancer are expected.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Toxicity No specific adverse effects are known.

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulative potential No information available.

12.4. Soil mobility

Soil mobility No information available.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment Product does not contain any (very) Persistent, (very) Bioaccumulative and/or Toxic substances.

12.6. Other adverse effects

Other adverse effects Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste treatment methods Dispose of waste and residue in accordance with local and national regulations.

14. TRANSPORT INFORMATION

14.1. Land transport (ADR/RID/DOT)

Land transport Not classified as hazardous for transport.

14.2. Sea transport IMDG

Sea transport Not classified as hazardous for transport.

14.3. Air transport IATA

Air transport Not classified as hazardous for transport.

15. REGULATORY INFORMATION

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

US Federal and Canadian Regulations

	United States TSCA (Toxic Substances Control Act) Inventory	Canadian DSL (Domestic Substances List)
Aluminium silicate (1327-36-2)	Listed	Listed
Mullite (1302-93-8)	Listed	Listed
Calcite (1317-65-3)	Listed	Listed
Quartz (14808-60-7)	Listed	Listed

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.

15.2. Chemical safety assessment

Chemical Safety Assessment No information available.

16. OTHER INFORMATION

16.1. Other information:

GHS Full Text Phrases:

STOT- SE 3	Specific target organ toxicity(single exposure) Category 3
STOT- RE 1	Specific target organ toxicity(repeat exposure) Category 1
Carc. 1A	Carcinogenicity Category 1A
H335	May cause respiratory irritation
H350	May cause cancer
H372	Causes damage to organs through prolonged or repeated exposure.

E-SPHERES consist of amorphous and poorly crystalline alumino silicates. XRD analysis of crystalline silica (quartz) determines that the quartz content is below the detection limit of analysis (in bulk materials). Any quartz that is potentially present (below the detection limits) is fused into the microspheres' ceramic matrix and hence it is not biologically available.

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. 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 may 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.

The microspheres are inert and do not leach detectable levels of heavy metals.

Revision date: May 2018

Reason for revision: Adaptation to GHS

Date of issue: 10 July 2018

Supersedes: Version 02 May 2017

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations and According to the Hazardous Products Regulation (February 11, 2015) and in accordance with the safety data sheet requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada' Hazardous Products Regulations (HPR) SOR/2015-17.

Disclaimer:

The information given in this SDS is to the best of Envirospheres' knowledge and believed accurate and reliable as of the data indicated. However, no warranty or guarantee is made to its accuracy, reliability or completeness. The information provided is based on proper handling and anticipated uses and is not valid for the material used in combination with other materials or in any process. Each user must, prior to usage, review this SDS to determine the suitability of the information for their particular use.