

E-SPHERES®

1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product Identifier

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|------------------------------|--|
| Product name | E-SPHERES® |
| Synonyms | Cenospheres, hollow ceramic microspheres E-SPHERES SL series E-SPHERES ES series |
| CAS no. | 93924-19-7 |
| EC-no. | 300-212-6 |
| EU REACH registration number | 01-2119563688-21-0002 |

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

| | |
|---------------------|-------------------------------|
| Identified use | Industrial lightweight filler |
| Use advised against | None |

1.3 Details of the Supplier

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

1.4 Emergency Telephone Number

| | |
|-------------------------|---|
| REACH and CLP helpdesk: | https://echa.europa.eu/support/helpdesks/ |
|-------------------------|---|

2 HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

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|----------------|---|
| Classification | Not classified as hazardous according to Regulation (EC) No 1272/2008 |
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2.2 Label Elements

| | |
|-------------------------|--|
| Pictogram | Not required |
| Single word | No single word |
| Hazard statement | None |
| Precautionary statement | Handle with care to avoid dust generation. |

2.3 Other Hazards

| | |
|----------------------|---|
| PBT and vPvB | Substance does not meet the criteria for persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) substances. |
| Endocrine disruptors | Not applicable. |
| Other | Exposure may aggravate pre-existing respiratory conditions |

3 COMPOSTION / INFORMATION ON INGREDIENTS

3.1 Substances

| | |
|---------------------------|--|
| Chemical Characterisation | Hollow ceramic microspheres of amorphous aluminosilicate (or aluminosilicate) CAS No. 93924-19-7 |
|---------------------------|--|

4 FIRST AID MEASURES

4.1 Description of First Aid Measures

| | |
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| Inhalation | Move person to fresh air. If symptoms persist, seek medical advice. |
| Skin contact | Remove contaminated clothing and wash with plenty of water. Seek medical advice if irritation develops or persists. |
| Eye contact | Immediately rinse eyes with water. Remove contact lenses if present and easy to remove and continue to rinse. Seek medical advice if symptoms persist. |
| Ingestion | Rinse mouth thoroughly and seek medical advice as required. |

4.2 Most Important Symptoms and Effects, both Acute and Delayed

Not known.

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

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| Immediate medical attention | First aid, decontamination, treatment of symptoms. |
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5 FIRE FIGHTING MEASURES

5.1 Extinguishing Media

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| Suitable extinguishing media | This 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

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| Fire hazards | Product is not flammable. |
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5.3 Advice for Fire Fighters

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| Protective equipment | Self-contained respirator / breathing apparatus (DIN EN 133). |
| Additional information on firefighting | No special measures required. Use extinguishing measures that are appropriate to the surrounding environment. Fire residues and contaminated water must be disposed of in accordance with local regulations. Do not allow run off into drains and water ways. |

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

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|-------------------------|---|
| Non-emergency personnel | Evacuate from area. |
| Emergency personal | Ensure adequate ventilation and avoid generation and breathing of dust. Wear protective clothing as per section 8.1. Respiratory protection, gloves and safety glasses must be used in high dust conditions. |
| Emergency procedures | <i>Minor spills:</i> Clean up the area immediately using dry clean up procedures and avoid generation of dust. <i>Major spills:</i> Avoid generation of dust. Contain any spills with bunding and covering of drains to prevent migration and entry into sewers or streams. See section 6.3 for clean-up procedures. |

6.2 Environmental Precautions

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|---------------------------|---|
| Environmental precautions | Product not classified as hazardous to the environment. Any spillage should not be released into the environment and must be contained to prevent runoff into waterways and sewers. |
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6.3 Methods and Materials for Containment and Cleaning Up

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| Methods for cleaning up | Avoid dust formation and dispersal of dust. Dust must be exhausted directly at the point of origin. Use approved industrial vacuum cleaner for removal. Wash spill site if necessary and retain all contaminated water and dispose of according with local and national regulations. |
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6.4 Reference to Other Sections

Refer to section 8 for personal protection and section 13 for waste disposal.

7 HANDLING AND STORAGE

7.1 Precautions for Safe Handling

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| Safe handling | Minimise dust generation and accumulation. Wear personal protective equipment and avoid breathing dust and prolonged contact with product. Wear approved and suitable dust mask in high dust areas. Avoid spillage and keep away from drains and waterways. |
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7.2 Conditions for Safe Storage, Including any Incompatibilities

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| Storage specifications | Store in original bags or tightly closed containers in a dry and well-ventilated area. Do not store near food or drinking water. |
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7.3 Specific End Use(s)

Refer to section 1.2

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters

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

USA ACGIH (8hr TWA) 3mg/m³ Respirable dust, 10mg/m³ Inhalable dust

USA OSHA PEL (8hr TWA) 5mg/m³ Respirable dust, 15mg/m³ Total dust

8.2 Exposure Controls

Appropriate engineering controls

Provide adequate ventilation and minimise dust inhalation. Local exhaust ventilation is recommended to keep dust levels below exposure limits.



Personal protective equipment

Respiratory equipment

If the dust concentration in workplace air exceeds the occupational exposure limit values, approved and suitable respiratory protection must be used. Filter type P2.

Hand protection

Protective gloves resistant to chemicals must be worn.

Eye Protection

Wear dust resistant safety goggles with side protection according to EN 166.

Skin protection

Wear suitable protective clothing, gloves and eye/face protection.

General hygiene measures:

Do not eat, drink, or smoke when handling. Wash hands before breaks and after work

Environmental exposure controls (Dir 2008/50EC)

PM10: 50µg/m³* limit value, one day (1.1.2010)

PM10: 20µg/m³ limit value, calendar year

PM2.5: 25µg/m³ target value (1.1.2010)

PM2.5: 20µg/m³ limit value (1.1.2020)

*Not to be exceeded more than 35 times a calendar year.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

| | |
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| Physical state | Solid |
| Form | Hollow microspheres |
| Colour | White or Grey |
| Odour | No perceptible odour |
| Odour threshold | Not applicable |
| pH | Raw cenospheres in leachate 5.5 - 6.4 (30 min. - 24h) Processed cenospheres in leachate 6.5 - 6.9 (30 min. - 24h) |
| Melting point | 1260 - 1560 °C |
| Boiling point / °C | Not applicable |
| Flash point / °C | Not combustible |

Product Safety Information



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| Flammability | Non-flammable |
| Risk of explosion | Not explosive |
| Vapour pressure | Not applicable |
| Density | Raw cenospheres 1 g/cm ³ . Processed cenospheres (dried at 105 °C) 0.7 g/cm ³ |
| Bulk Density | 0.4 g/cm ³ |
| Solubility | Insoluble in water |
| Partition coefficient (n-octanol/water) | Not applicable |
| Decomposition temperature | No data available |
| Viscosity, dynamic | Not applicable |
| Oxidation | Not oxidising |
| Particle characteristics using laser light scattering method (volume based) | 20-500 microns (Typical particle size distribution) |

10 STABILITY AND REACTIVITY

- 10.1 Reactivity:** No known specific reactivity hazard associated with this product.
- 10.2 Chemical Stability:** Product is chemically stable under normal conditions.
- 10.3 Possibility of Hazardous Reactions:** None known.
- 10.4 Conditions to Avoid:** No special requirements
- 10.5 Incompatible Materials:** None known
- 10.6 Hazardous Decomposition Materials:** None known

11 TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

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|--------------------------------|--|
| Acute toxicological effects | No LD 50 and LC 50 data is available for this product. Skin irritation may result from physical contact. May cause eye irritation if exposed to large amounts of dust. Inhalation of high concentrations may cause irritation of the respiratory system. |
| Chronic toxicological effects. | No data available but if dust exposures are kept below the exposure standard, no long-term health, or toxic effects such as pneumoconiosis or lung cancer are expected. |

11.2 Information on Other Hazards

Product does not meet the hazardous classification according to Regulation (EC) No. 1272/2008 (CLP). Not listed by NTP, IARC or OSHA US as carcinogen.

12 ECOLOGICAL INFORMATION

12.1 Toxicity

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| Toxicity | No specific adverse effects are known. |
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12.2 Persistence and Degradability

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| Biodegradability | Product is inorganic. The methods for determining the biological degradability are not applicable to inorganic substances. |
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12.3 Bioaccumulative Potential

Bioaccumulation No information available.

12.4 Mobility in Soil

Mobility No data 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 Endocrine disruptor

Endocrine disruptor Not Identified as a substance with endocrine disrupting properties according to Regulation (EU) 2017/2100 or Regulation (EU) 2018/605.

12.7 Other Adverse Effects

Additional ecological information Product does not meet the classification criteria for ecotoxicological endpoints in accordance with (EC) No. 1272/2008 (CLP) and UN Globally Harmonised System of Classification and Labelling of Chemicals (GHS 9th Rev).

13 DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Disposal considerations Product should be recovered for recycling if possible. Product is not classified as hazardous waste according to Commission decisions 2000/532/EC and 2001/118/EC. Prior to disposal of large quantities of this material advice should be sought from the Environment Agency Office.

14 TRANSPORT INFORMATION

14.1 UN Number Not allocated

14.2 Proper Shipping Name Not allocated

14.3 Transport Hazard Class and Subsidiary Risk

Land Transport (ADR/RID/DOT) Not classified as hazardous for transport

Sea Transport IMDG Not classified as hazardous for transport

Air Transport ICAO/IATA Not classified as hazardous for transport

14.4 Packing Group Not allocated

14.5 Environmental Hazards Not regulated as dangerous goods

15 REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations / Legislations Specific for the Substance or Mixture

REACH - Candidate list of substances of very high concern for authorisation (Article 59) : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

15.2 Chemical Safety Assessment

Safety assessment

No information available

16 OTHER INFORMATION

16.1 General Information

REACH article 31(7) requires relevant exposure scenarios from the Chemical Safety Report (CSR) to be placed into the annex to the Safety Data Sheet. According to REACH Annex I, section 0, subsection 0.6. no. 4 and 5 however, exposure scenarios are only required for hazard-classified substances or preparations. Since the product is not hazard-classified, there is no requirement for exposure scenarios.

16.2 Revision

Revision Date:

August 2022

Reason for review:

To align with revised EU safety data sheets Regulation (EU) 2020/878 and replaces Product Safety Information Sheet dated 15 April 2020.

Issue Date:

28 September 2022

Disclaimer

The information provided in this PSI is to the best of EnviroSpheres' knowledge and believed accurate and reliable as of the data indicated. However, no representation, warranty or guarantee is made to its accuracy, reliability, or completeness. It is the user's responsibility to review the suitability and completeness of information for their particular use.