According to 1907/2006/EC, Article 31

1. IDENTIFICATION OF SUBSTANCE

1.1 Product identifier

This Safety Data sheet is provided as a courtesy in response to customer requests. The product is classified as an article. Articles are not subject to this geography's hazard communication regulations. As generally defined: "Article" means any article that is formed to a specific shape or design during manufacture, the intended use of which when in that form is dependent in whole or in part on its shape or design, and that, when being installed, if the intended use of the article requires it to be installed, and under normal conditions of use, will not release or otherwise cause an individual to be exposed to a hazardous product.

Chemical Identification: Cryogel® Z

1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.
Application of the substance / the mixture High performance insulation material with foil laminate

1.3 Details of the Supplier of the Substance or Mixture

Manufacturer

INSULCON B.V.
The Netherlands
Tel. : +31 (0)167-565750
Zilverhoek 4, 4651 SP STEENBERGEN
E-mail: info@insulcon.com
Internet : www.insulcon.com

INSULCON N.V.
Belgium
Tel. : + 32 (0)3 711.02.78

INSULCON GMBH
Germany
Tel.: + 49 (0) 2131 548-0

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008
The product is not classified, according to the GB CLP regulation.

Additional information:
This Article Information Sheet (AIS) is provided as a courtesy in response to customer requests. The product is classified as an article according to local regulations. Articles are not subject to this geography's hazard communication regulations.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 None

Hazard pictograms	None
Signal word	None
Hazard statements	None

2.3 Other hazards

Results of PBT and vPvB assessment

PBT:	Not applicable.
vPvB:	Not applicable.

LEADER IN HIGH TEMPERATURE SOLTIONS

SAFETY DATASHEET

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3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical characterisation: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:
None

CAS: 7631-86-9 EINECS: 231-545-4	amorphous silicon dioxide, chemically prepared substance with a Community workplace exposure limit	30.0-60.0%
CAS: 1332-58-7	Fibrous glass, textile grade substance with a Community workplace exposure limit	10.0-30.0%
Kaolin	substance with a Community workplace exposure limit	0.0-5.0%

Additional information:
Non-hazardous components are listed above due to the existence of country-specific occupational exposure level (OEL)
values (see Section 8) or are being voluntarily disclosed.
The exact percentage concentration of composition has been withheld as a trade secret or is disclosed as a range due to batch variation.

For the wording of the listed hazard phrases refer to section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General information:	No special measures required.
After inhalation:	Supply fresh air.
After skin contact:	
Wash with plenty of soap and water.	
If persistent skin irritation continues, consult a doctor.	
After eye contact:	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing:	If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed
Dust may cause mechanical eye, skin, or respiratory irritation.
Synthetic amorphous silica aerogels are hydrophobic (repel water) and may cause temporary drying and irritation of the
skin, eyes, and mucous membranes.

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

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5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture
Product is a super-insulator. Rolls of material will retain heat within internal layers and can ignite after the fire is extinguished.
Keep hot material away from combustible materials. Cool hot insulation with plenty of water.

5.3 Advice for firefighters
Protective equipment:
Normal firefighting procedures should be followed to avoid inhalation of smoke and gases produced by fir.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:
Avoid formation of dust.
Use personal protective equipment as required.
Ensure adequate ventilation.

6.2 Environmental precautions: No special measures required.
6.3 Methods and material for containment and cleaning up:
Collect using methods that avoid the generation of dust. Pick up large pieces and vacuum dust. Place in appropriate container for disposal.

6.4 Reference to other sections
See Section 7 for information on safe handling.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid dust contact with eyes, skin, and clothing. Avoid breathing dust.
This product may generate dust when handled. Because amorphous silica aerogel dust is hydrophobic, water may not be an effective dust control agent. Workplace exposures to all dusts should be controlled with standard hygiene practices.
Local exhaust should be the primary dust control method. Dry vacuuming is the preferred method for cleaning up dust. This will help to minimize the area where dust exposure may occur. Scrap material should be packed for disposal. Wash hands with soap and water after handling.
Trimmed material may be reused in secondary applications and should be promptly packed in resealable bags. Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Information about fire - and explosion protection: No special measures required.

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7.2 Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles:
Keep packaging tightly sealed until ready for use.
Store in a dry place.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: None.

7.3 Specific end use(s) No further relevant information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
Additional information about design of technical facilities:
Technical measures and the application of adequate working methods take priority over the use of personal protection equipment. Use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Ingredients with limit values that require monitoring at the workplace:	
7631-86-9 amorphous silicon dioxide, chemically prepared	
AGW (Germany)	Long-term value: 1 E mg/m³ 8(II);AGS, 2, Y
WEL (Great Britain)	Long-term value: 6*, 2.4** mg/m³ *inhalable fraction, **respirable fraction
CAL OSHA PEL (USA)	Long-term value: 6*, 3** mg/m³ *total dust, **respirable dust
NIOSH REL (USA)	Long-term value: 6 mg/m³
OSHA PEL (USA)	Long-term value: 80 mg/m³ per % SiO2
Fibrous glass, textile grade	
MAK (Germany)	Short-term value: 0.8 mg/m³ Long-term value: 0.1*, 2** mg/m³ *half-life <40 tage, **lungengängig
LEP (Spain)	Long-term value: 1 fibre per cm³

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ACGIH TLV (USA)	Long-term value: 5* mg/m³ *inhalable
NIOSH REL (USA)	Long-term value: 5* mg/m³ *total
OSHA PEL (USA)	Long-term value: 5*, 15** mg/m³ *respirable, **total as inert or nuisance dust
1332-58-7 Kaolin	
LEP (Spain)	Long-term value: 2* mg/m³ d, e *Fracción respirable
WEL (Great Britain)	Long-term value: 2 mg/m³
TWA (Italy)	Long-term value: 2 mg/m³ A4 (e, j)
PEL (USA)	Long-term value: 15* 5** mg/m³ *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m³ *total dust **respirable fraction
TLV (USA)	Long-term value: 2* mg/m³ E; respirable particulate matter, A4

Regulatory information
AGW (Germany): TRGS 900
WEL (Great Britain): EH40/2020
MAK (Germany): MAK- und BAT-Liste
LEP (Spain): Límites de exposición profesional para agentes químicos
TWA (Italy): Valori Limite di Soglia
PEL (USA): Guide to Occupational Exposure Values (OSHA PELs)
REL (USA): Guide to Occupational Exposure Values (NIOSH RELs) TLV (USA): Guide to Occupational Exposure Values (TLV) Additional information:
Monitoring of substance concentrations in air at the workplace may be necessary to ensure compliance with official exposure limit values and adequacy of exposure controls. For further information contact the supplier or the competent authorities.
The lists valid during the making were used as basis.

8.2 Exposure controls
Personal protective equipment:
General protective and hygienic measures:
The usual precautionary measures for handling insulation materials should be followed.
Respiratory protection: Select fit and use in accordance with local and national regulations.
Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Material of gloves

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The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection: Appropriate safety eye wear is recommended.
Body protection: Appropriate work clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General information:
Appearance:

Form:	Fabric blanket with foil laminate
Colour:	According to product specification
Odour:	Odourless
Odour threshold:	No data available.
pH-value:	Mixture is non-soluble (in water).
Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.
Flash point:	Not applicable.
Flammability (solid, gas):	Product is not flammable.
Decomposition temperature:	Not determined.
Ignition temperature:	Product is not self-igniting.
Explosive properties:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure:	Not applicable.
Density:	Not determined.
Relative density	Not determined.
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with water:	Insoluble.
Partition coefficient: n-octanol/water:	Not determined.
Viscosity:	
Dynamic:	Not applicable.

9.2 Other information

No further relevant information available

10. STABILITY AND REACTIVITY

10.1 Reactivity:

Not reactive under normal conditions of use.

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10.2 Chemical stability:
Stable under normal conditions.
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications

10.3 Possibility of hazardous reactions:
No dangerous reactions known.

10.4 Conditions to avoid:
This product is an engineered material. Application should be validated with the manufacturer.

10.5 Incompatible materials:
Strong acids and bases

10.6 Hazardous decomposition products:
No hazardous decomposition products during normal storage and handling.

11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes
Acute toxicity:
Based on available data, components are not acutely toxic.

Primary irritant effect:
Skin corrosion/irritation:
Handling may cause dryness and may cause temporary irritation to skin.

Serious eye damage/irritation:
Handling may cause dryness and may cause temporary irritation to skin.

Respiratory or skin sensitization:
The chemical structure does not suggest a sensitizing effect.

Additional toxicological information:
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
Germ cell mutagenicity
Based on available data, the classification criteria are not met.
Carcinogenicity
Based on available data, the classification criteria are not met.

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Reproductive toxicity
Based on available data, the classification criteria are not met.
STOT-single exposure
Based on available data, the classification criteria are not met.
STOT-repeated exposure
Based on available data, the classification criteria are not met.
Aspiration hazard
Based on available data, the classification criteria are not met.

12. ECOLOGICALINFORMATION

12.1 Toxicity
Aquatic toxicity: Not toxic to aquatic environment.

12.2 Persistence and degradability
No further relevant information available.

12.3 Bioaccumulative potential
No further relevant information available.

12.4 Mobility in soil
No further relevant information available.

Additional ecological information:
General notes: Not hazardous for water

12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects
No further relevant information available.

13. DISPOSAL CONSIDERATION

13.1 Waste Treatment Methods:
Recommendation: Dispose of contents/container in accordance with local/ regional/national/international regulations

Uncleaned packaging:
Recommendation:
Cover promptly to avoid dust generation.

14. TRANSPORT INFORMATION

14.1 UN number or ID number
ADR, IMDG, IATA Not regulated

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14.2 UN proper shipping name
ADR, IMDG, IATA Not regulated

14.3 Transport hazard class(es)
ADR, ADN, IMDG, IATA
Class Not regulated

14.4 Packing group
ADR, IMDG, IATA Not applicable

14.5 Environmental hazards Not applicable.

14.6 Special precautions for user Not applicable.

14.7 Maritime transport in bulk according to IMO
Marpol and the IBC Code Not applicable.
UN "Model Regulation": not regulated

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Directive 2012/18/EU
Named dangerous substances - ANNEX I None of the ingredients are listed.

15.2 Chemical safety assessment:
A Chemical Safety Assessment has not been carried out

16. OTHER INFORMATION

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this article information sheet for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this article information sheet is not valid for the new made-up material.

Abbreviations and acronyms:

ADR:	Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG:	International Maritime Code for Dangerous Goods
IATA:	International Air Transport Association
GHS:	Globally Harmonised System of Classification and Labelling of Chemicals

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EINECS:	European Inventory of Existing Commercial Chemical Substances
ELINCS:	European List of Notified Chemical Substances
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
LC50:	Lethal concentration, 50 percent
LD50:	Lethal dose, 50 percent
PBT:	Persistent, Bioaccumulative and Toxic
vPvB:	Very Persistent and very Bioaccumulative

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