

**Material Safety Data Sheet (MSDS) for:
TT1000 series & TT0200 series. Including all density variations.**

MSDS NUMBER 90001—EURO-REACH
DATE OF FIRST ISSUE 15.4.2013
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1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

IDENTIFICATION OF THE PRODUCT

Micro porous insulation panel

USE OF PRODUCT

Industrial insulation

IDENTIFICATION OF THE COMPANY

Unicorn Insulation Ltd.

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17 Canton Road TSIM SHA TSUI,
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EMERGENCY CONTACT NUMBER

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2. HAZARDS IDENTIFICATION

Critical Hazards to man and environment

None

Further information

Owing to the length / diameter ratio, the fibers cannot enter the lungs (drawn continuous filament with diameter > 3 µm).

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization (preparation):

Mixture of SiO₂ (fumed silica), opacifiers and enforcement fibers.

Component	CAS Number
SiO ₂	7631-86-9
SiC	409-21-2

None of the components are radioactive under the terms of European Directive Euratom 96/29.

4. FIRST-AID MEASURES

After inhalation:

Provide fresh air.

After contact with the skin:

Wash with plenty of water or water and soap.

After contact with the eyes:

Rinse immediately with plenty of water. Seek medical advice in case of continuous irritation.

After swallowing:

Wash mouth with water and drink plenty of water afterwards **For all symptoms:**
In case remaining complains seek for medical advice

5. FIRE-FIGHTING MEASURES

General information

Product does not burn.

Use extinguishing measures appropriate to the source of the fire.

Fire protection class: A1.

Product may have synthetic packaging/cover. Only this packaging/cover is combustible.

Suitable extinguishing media

not applicable

Extinguishing media which must not be used for safety reasons

According to our present state of knowledge: none known

Special protective equipment for fire fighting

Use respiratory protection independent of re-circulated air.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear personal protective suit (see section 8). Avoid dust formation.

Environmental precautions

No special measures required.

Methods for cleaning up

Absorb mechanically and dispose of according to regulations.

7. HANDLING AND STORAGE

Handling

Precautions for safe handling

Avoid dust formation. When dust formation: Must be syphoned off in situ.

Precautions against fire and explosion

No special precautions against fire and explosion required.

Storage

Conditions for storage rooms and vessels

Store in a dry and sheltered place.

Advice for storage of incompatible materials

No restriction.

Further information for storage

The product is hygroscopic. Protect against condensats / liquids.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits:

Occupational exposure limits for amorphous silica

Amorphous silica: CAS Nr. 7631-86-9

Specification: Occupational exposure limits TRGS 900 (D) Value : 4 mg/m³
(inhalable fraction)

Reproduction toxic : ---

Occupational exposure limits for dust (inhalable fraction)

Specification: Occupational exposure limits TRGS 900 (D) Value : 10 mg/m³
Reproduction toxic: ---

Occupational exposure limits for dust (alveolar dust fraction)

Specification: Occupational exposure limits TRGS 900 (D) Value : 3 mg/m³
Reproduction toxic: ---

EC Occupational exposure limits

Ingredients not classified in EC- Regulations 2000/39 EG and 2006/15 EG.

Specification: ---
Short term exposure limit (STEL): ---
long term exposure limit (8 h TWA): ---
Direction „dermis “: ---

Additional information:

Based on the ratio of its length to its diameter, the ingredient endless filament glass fiber is not classified as alveolar fiber. (Classification WHO)

Exposure Control

In accordance with the exposure limits. To be within the exposure limits, dust removal systems are to be favored.

Personal protection equipment

Respiratory protection

Due to working procedures protect against dust inhalation with respiratory protection such as particulate respirator.

Hand protection

Due to working procedures protect hands by wearing dust-proof protective gloves.

Eye protection

During strong formation of dust wear tight-fitting protective eye glasses.

Protective clothing

Not necessary

General health and safety measures

Avoid inhalation of dust. The use of skin protection cream is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form solid - compact
Colour grey or white

Safety parameters

Melting point :	> 1200 °C
Danger of explosion :	---
Explosion limit - upper :	---
Explosion limit - lower :	---
Vapor pressure :	---
Density :	150 – 400 kg/m ³
Viscosity :	---
Solubility in water:	Not water soluble
pH-Value:	4,2 – 4,3 at 25°C (40 g/l H ₂ O)
Flash point :	---
Ignition temperature :	---

10. STABILITY AND REACTIVITY

Conditions to be avoided

None

Substances to be avoided

None

Hazardous decomposition products

None

11. TOXICOLOGICAL INFORMATION

General information

According to our current knowledge no further data known. According to our present state of knowledge no damaging effect expected when treated in accordance with standard industrial practices and local regulations where applicable. The toxic results listed below have been demonstrated in tests with other similar products.

Acute toxicity

LD/LC50-values relevant to classification:

Exposition	Value/value range	Species	Source
inhalation	> 0,8 mg/l / 4h (spray/dust)	rat (Limittest)	test report

Specific symptoms in animal test:

At the technically highest possible concentration no mortality in animal test.

Further toxicological information

In case of dust formation: Irritation to eyes and respiratory organs possible.

12. ECOLOGICAL INFORMATION

Biodegradation / further information

Product causes no oxygen demand.
Insoluble in water. Separation by sedimentation.

Behavior in environmental compartments

No harmful effects expected.

Eco toxicological effects

No likelihood of damaging effect on water organisms.

Effects in sewage treatment plants (bacteria toxicity; respiration-/reproduction inhibition)

According to present experience, no adverse effects on water purification plants.

Further ecological information

According to recent knowledge no hazardous influence to environment. Easily separable from water by filtration.

13. DISPOSAL CONSIDERATIONS

Material

Recommendation

Product that must be disposed of in a controlled manner in compliance with the local regulations.
Special disposal. Observe the local bye-laws.

Contaminated packaging

Recommendation

Containers may be recycled or re-used. Observe local/national bye-laws.

Recommended cleaning agent

Water

14. TRANSPORT INFORMATION

Land transport GGVS/ADR and GGVE/RID

Road GGVS/ADR

Valuation:

Non-hazardous material

Railway GGVE/RID

Valuation:

Non-hazardous material

Express:

permitted

Inland navigation GGVBinsch/ADNR

Transport by sea GGVSSee/IMDG-Code

Valuation:

Non-hazardous material

Marine Pollutant:

no

Air transport ICAO-TI/IATA-DGR

Valuation:

Non-hazardous material

Transport/further information

Postal and courier service

German postal dispatch:

permitted

15. REGULATORY INFORMATION

Warning Label (EU)

R-Phrase

Description

S-Phrase

Description

16. OTHER INFORMATION

The information presented herein is based on data considered to be accurate as of the date of preparation of this ^w. However safe as provided by law, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by the vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product (however, this shall not act to restrict the vendor's potential liability for negligence or under statute).