SAFETY DATA SHEET

Oryza SIL 650

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name: Oryza SIL 650

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

Relevant identified uses of the substance or mixture: Insulation mat
Restricted to professional users.

Uses advised against : None known.

1.3. Details of the supplier of the safety data sheet

▼Company and address:

Beerenberg Services AS
PB 273 Slåtthaug
N-5851 Bergen
Norway
+47 55 52 66 00

E-mail: post@beerenberg.com

Revision: 18/11/2024

SDS Version: 4.0

Date of previous version: 18/09/2024 (3.0)

1.4. Emergency telephone number

Healthcare professionals: Dial 0344 892 0111 to reach The National Poisons Information Service (NPIS) (24 hour service)
General public:
England - Dial 111 to reach NHS 111 (24 hour service)
Scotland - Dial 112 to reach NHS 24 (24 hour service)
Wales - Dial 111 or 0845 4647 to reach NHS Direct (24 hour service)
See section 4 “First aid measures”.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

2.2. Label elements

Hazard pictogram(s): Not applicable.

Signal word: Not applicable.

Hazard statement(s): Not applicable.

Precautionary statement(s):

General -

Prevention -

Response -

Storage -

Disposal -

Hazardous substances: None known.

Additional labelling: Not applicable.

2.3. Other hazards

Additional warnings: Lungs may be affected by repeated or prolonged exposure to dust. Dust may cause painful eye irritation and tearing.
This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.
This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Amorphous silica	CAS No.: 7631-86-9 EC No.: 231-545-4 UK-REACH: Index No.:	30 - 60%		
Aluminium oxide	CAS No.: 1344-28-1 EC No.: 215-691-6 UK-REACH: Index No.:	5 - 10%		

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

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SECTION 4: First aid measures

4.1. Description of first aid measures

General information:	In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.
Inhalation:	Allow affected person to breathe fresh air. Allow the patient to rest.
Skin contact:	Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.
Eye contact:	Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
Ingestion:	Rinse and flush mouth thoroughly and consume large quantities of water. In case of continued discomfort: seek medical assistance and bring this safety data sheet.
Burns:	Not applicable.

4.2. Most important symptoms and effects, both acute and delayed

Dust from this product may cause irritation to the respiratory tract.
Chronic inhalation of dust particles can cause lung infection, obstructed airways and fibrosis.
Dust may cause mechanical skin and eye irritation.

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

Treat symptomatically.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.
Product is a super-insulator. Rolls of material will retain heat within internal layers that may be a source of ignition after the fire is extinguished. Keep hot material away from combustible materials and cool hot insulation with water.

5.3. ▼Advice for firefighters

No specific requirements.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation, especially in confined areas.
Contaminated areas may be slippery.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.
Keep unauthorized persons away from the spill

6.3. Methods and material for containment and cleaning up

Dry vacuuming is the preferred method for cleaning up dust. Because aerogel dust is hydrophobic, water is not an effective dust control agent.

6.4. Reference to other sections

See section 13 “Disposal considerations” on handling of waste.
See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Aerogel blankets may generate dust when handled. Workplace exposures to all dust should be controlled with standard industrial hygiene practices. Local exhaust should be the primary dust control method. Dry vacuuming is the preferred method for cleaning up dust. Because aerogel dust is hydrophobic, water is not an effective dust control agent. Unpack material in the work area. This will help to minimize the area where dust exposure may occur. Trimmed material should be promptly packed in disposal bags. Trims and offcuts may be reused in secondary applications, otherwise scrap material should be packed for disposal. Avoid dust contact with eyes, skin and clothing and avoid breathing dust. Wash hands with soap and water after handling.

7.2. Conditions for safe storage, including any incompatibilities

Recommended storage material:	Store in properly labeled containers.
Storage conditions:	Protect from moisture. Room temperature 15 to 25°C Do not store together with volatile chemicals as they may be absorbed onto product.
Incompatible materials:	Strong acids Strong bases

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Amorphous silica
Long term exposure limit (8 hours) (mg/m³): 6 (inhalable dust) /2.4 (respirable dust)

Glass wool
Long term exposure limit (8 hours) (ppm): 2 fibers/mL
Long term exposure limit (8 hours) (mg/m³): 5

Aluminium oxide
Long term exposure limit (8 hours) (mg/m³): 10(inhalable)/4(respirable)

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.
EH40/2005 Workplace exposure limits (Fourth Edition 2020).

DNEL

Aluminium oxide

Duration:	Route of exposure:	DNEL:
Long term – Local effects - General population	Inhalation	750 µg/m³
Long term – Local effects - Workers	Inhalation	3 mg/m³
Long term – Systemic effects - General population	Inhalation	750 µg/m³
Long term – Systemic effects - Workers	Inhalation	3 mg/m³
Long term – Systemic effects - General population	Oral	1.32 mg/kg bw/day

PNEC

Aluminium oxide

Route of exposure:	Duration of Exposure:	PNEC:
Sewage treatment plant		20 mg/L

8.2. ▼Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations:	Smoking, drinking and consumption of food is not allowed in the work area.
Exposure scenarios:	There are no exposure scenarios implemented for this product.
▼Exposure limits:	Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures:	Do not breathe dust. Provide adequate ventilation to minimize dust concentrations. Provide eye wash bottle at the work site.
Hygiene measures:	Wash hands after use.
Measures to avoid environmental exposure:	No specific requirements.

Individual protection measures, such as personal protective equipment

Generally: Use only UKCA marked protective equipment.

Respiratory Equipment:

Work situation	Type	Class	Colour	Standards
When there is risk of dust formation	SL	P3	White	EN149

Skin protection:

Work situation	Recommended	Type/Category	Standards
When there is risk of dust formation	Dedicated work clothing should be worn.	-	-

Hand protection:

Work situation	Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
When there is risk of dust formation	Cotton/Latex	-	-	EN388, EN407

Eye protection:

Work situation	Type	Standards
When there is risk of dust formation	Safety glasses with side shields.	EN166

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Solid
Colour:	White
Odour / Odour threshold:	None
pH:	No relevant or available data due to the nature of the product.
Density (g/cm^3):	No relevant or available data due to the nature of the product.
Kinematic viscosity:	Does not apply to solids.
Particle characteristics:	No relevant or available data due to the nature of the product.

Phase changes

Melting point/Freezing point (°C):	No relevant or available data due to the nature of the product.
Softening point/range (°C):	Does not apply to solids.
Boiling point (°C):	Does not apply to solids.
Vapour pressure:	No relevant or available data due to the nature of the product.
Relative vapour density:	Does not apply to solids.
Decomposition temperature (°C):	No relevant or available data due to the nature of the product.

Data on fire and explosion hazards

Flash point (°C):	Does not apply to solids.
Flammability (°C):	The material is not combustible.
Auto-ignition temperature (°C):	No relevant or available data due to the nature of the product.
Lower and upper explosion limit (% v/v):	Does not apply to solids.

Solubility

Solubility in water:	Insoluble
n-octanol/water coefficient (LogKow):	No relevant or available data due to the nature of the product.
Solubility in fat (g/L):	No relevant or available data due to the nature of the product.

9.2. Other information

Oxidizing properties:	No relevant or available data due to the nature of the product.
Other physical and chemical parameters:	No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity
No data available.

10.2. Chemical stability
The product is stable under the conditions, noted in section 7 “Handling and storage”.

10.3. Possibility of hazardous reactions
None known.

10.4. Conditions to avoid
None known.

10.5. Incompatible materials
Strong acids
Strong bases

10.6. ▼Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

Acute toxicity

Product/substance	Amorphous silica
Species:	Rat
Route of exposure:	Oral
Test:	LD0
Result:	> 5000 mg/kg

Product/substance	Amorphous silica
Species:	Rat
Route of exposure:	Dermal
Test:	LD50
Result:	> 2000 mg/kg

Product/substance	Aluminium oxide
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	> 5000 mg/kg

Skin corrosion/irritation
Based on available data, the classification criteria are not met.

Serious eye damage/irritation
Based on available data, the classification criteria are not met.

Respiratory sensitisation
Based on available data, the classification criteria are not met.

Skin sensitisation
Based on available data, the classification criteria are not met.

Germ cell mutagenicity
Based on available data, the classification criteria are not met.

Carcinogenicity
Based on available data, the classification criteria are not met.

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.

Dust may irritate throat and respiratory system and cause coughing.

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.

11.2. Information on other hazards

Long term effects

None known.

Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

Other information

Amorphous silica has been classified by IARC as a group 3 carcinogen.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance	Aluminium oxide
Species:	Fish, Salmo gairdneri
Duration:	96 hours
Test:	LC50
Result:	> 100 mg/L

Product/substance	Aluminium oxide
Species:	Daphnia, Daphnia magna
Duration:	48 hours
Test:	EC50
Result:	> 100 mg/L

12.2. Persistence and degradability

Based on available data, the classification criteria are not met.

12.3. Bioaccumulative potential

Based on available data, the classification criteria are not met.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

Waste treatment methods

Product is not covered by regulations on dangerous waste.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

10 11 03	Waste glass-based fibrous materials
17 09	Other construction and demolition wastes

Specific labelling

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

* Packing group

** Environmental hazards

Additional information

Not dangerous goods according to ADR, IATA and IMDG.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

Restrictions for application:	Restricted to professional users.
Demands for specific education:	No specific requirements.
Control of Major Accident Hazards (COMAH) - Categories / dangerous substances:	Not applicable.
Additional information:	Not applicable.
Sources:	Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law. Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law. Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: Other information

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CE = Conformité Européenne (European conformity)
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial chemical Substances
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EuPCS = European Product Categorisation System
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
GWP = Global warming potential
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

▼Additional information

Not applicable.

The safety data sheet is validated by

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Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
Country-language: GB-en