According to (EC) No 1907/2006 amended by Regulation (EU) 2020/878

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

1.1. Product identifier

Trade name : Fiberfrax Modules, Fiberfrax Blankets, Fiberfax Textiles

Type of product: This product is an article under the REACH definition. As the Classification and labelling regulations (CLP) strictly applies to substances and mixtures it does not make provision for articles. However this product SDS and the defined labelling is provided voluntarily. As a duty of care to the user.

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

1.2.1. Relevant identified uses

Use of the substance/mixture : For industrial use within high temperature applications.

1.2.2. Uses advised against

No additional information available

Identification of the company

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

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

INSULCON GMBH
Germany
Tel.: +49 (0)2131-408548-0

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Carcinogenicity (inhalation) Category 1B H350i

Full text of H statements: see section 16

Adverse physicochemical, human health and environmental effects

May cause cancer (if inhaled).

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 (CLP)

In cases where the material has already been machined, the above voluntary label will be used!

Hazard pictograms (CLP)

GHS08

Signal word (CLP) : Danger

Hazardous ingredients : Aluminosilicate refractory ceramic fibres

LEADER IN HIGH TEMPERATURE SOLUTIONS

SAFETY DATASHEET

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Hazard statements (CLP) : H350i - May cause cancer by inhalation.

Precautionary statements (CLP): P201 - Obtain special instructions before use.
P261 – Avoid breathing dust
P280 - Wear Respiratory protection.

Extra phrases: : Restricted to professional users.

This product is an article under the REACH definition. As the Classification and labelling regulations (CLP) strictly applies to substances and mixtures it does not make provision for articles. However this product SDS and the defined labelling is provided voluntarily. As a duty of care to the user.

2.3. Other hazards

Other hazards not contributing to the classification:
May cause mechanical irritation to the skin, eyes and respiratory system.

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
Aluminosilicate refractory ceramic fibres (142844-006)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Component	
Aluminosilicate refractory ceramic fibres(142844-00-6)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixtures

Comments: Article
All products contain Aluminiosilicate Refractory Ceramic Fibres (RCF/ASW, CAS 142844-00-6):
None of the components are radioactive under the terms of European Directive Euratom 96/29.

substance with national workplace exposure limit(s) Fiberfrax Shapes and Fiberfrax Boards are ready to use products in high temperature applications Fiberfrax Modules, Fiberfrax Blankets, Fiberfrax Textiles are ready to use products in high temperature application.

LEADER IN HIGH TEMPERATURE SOLUTIONS

SAFETY DATASHEET

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Aluminosilicate refractory ceramic fibres substance listed as REACH Candidate (Note A)(Note R)	CAS-No.: 142844-00-6 EC Index-No.: 650-017-00-8 REACH-no: 01-211945805050-0000	-	Carc. 1B, H350i

Note A : Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part
3. In Part 3, use is sometimes made of a general description such as '... compounds' or '... salts'. In this case, the supplier is required to state on the label the correct name, due account being taken of section 1.1.1.4.

Note R : The harmonised classification as a carcinogen applies except in the case of fibres with a Length Weighted Geometric Mean minus two standard geometric errors greater than 6 µm, as measured in accordance with Test method A.22 in the Annex ro Commission Regulation (EC) No 440/2008

Full text of H- and EUH-statements: see section 16

4. FIRST AID MEASURES

4.1. Description of first aid measures

First-aid measures general	In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after inhalation	Fibrous dust may be liberated when handling in use. If irritation to nose and throat, move to fresh air.
First-aid measures after skin contact	Gently wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.
First-aid measures after eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing,
First-aid measures after ingestion	Ingestion unlikely. Rinse mouth. Do not induce vomiting.

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

Symptoms/effects after inhalation	: mechanical irritation.
Symptoms/effects after skin contact	: mechanical irritation.
Symptoms/effects after eye contact	: mechanical irritation.

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

Treat symptomatically.

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5. FIRE FIGHTING MEASURES

5.1. Extinguishing media
Suitable extinguishing media:
The product is not flammable. Use extinguishing media appropriate for surrounding fire.
Foam. Dry powder. Carbon dioxide. Water spray.

Unsuitable extinguishing media :
None

5.2. Special hazards arising from the substance or mixture
Fire Hazard : Non flammable
Explosion hazard : Product is not explosive

Hazardous decomposition products in case of fire:
Noner

5.3. Advice for firefighters
Firefighting instructions:
Prevent firefighting water from entering the environment.

Protection during firefighting:
Do not enter fire area without proper protective equipment, including respiratory protection.

Other information
Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulation.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
General measures : Avoid creating or spreading dust. Do not breathe dust. Avoid contact with skin and eyes.

6.1.1. For non-emergency personnel
Protective equipment : Concerning personal protective equipment to use, see section 8.
Emergency procedures : Prohibit unauthorized persons. Only qualified personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders
Protective equipment : Ensure adequate ventilation. Concerning personal protective equipment to use, see section 8.

6.2. Environmental precautions
Avoid release to the environment. Notify authorities if product enters sewers or public waters.

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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Mechanically recover the product. Minimise generation of dust. Dust can be vacuumed with a vacuum cleaner containing a HEPA (High Efficiency Particulate Air) filter.
Other information	Disposal must be done according to official regulations

6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling:

Obtain special instructions before use. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Ensure good ventilation of the work station. Extractiom to remove dust from is source. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Avoid contact with skin and eyes. Do not breathe dust. Clean contaminated areas thoroughly.

Hygiene measures;

Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Separate working clothes from town clothes. Launder separately.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions:

Product must only be kept in the original packaging. Store tightly closed in a dry and cool place.

Information about storage in one common storage:

Keep away from food, drink and animal feeding stuffs. facility

7.3. Specific end use(s)

For professional users only. See Heading 8. Exposure scenarios.

8. RISK MANAGEMENT MEASURES / EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters

Fiberfrax Modules, Fiberfrax Blankets, Fiberfrax Textiles	
United Kingdom - Occupational Exposure Limits	
	Observe general threshold limit for dust.
Aluminosilicate refractory ceramic fibres (142844-00-6)	
EU - Binding Occupational Exposure Limit (BOEL)	

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Local name	Refractory ceramic fibres which are carcinogens
BOEL TWA	0.3 fibers/ml
Regulatory reference	DIRECTIVE (EU) 2019/130 (amending Directive 2004/37/EC)
United Kingdom - Occupational Exposure Limits	
Local name	Refractory ceramic fibres and special purpose fibres
WEL TWA (OEL TWA) [1]	5 mg/m³ total inhalable dust
WEL TWA (OEL TWA) [2]	0.3 fibers/ml respirable fraction
Remark	Carc (Capable of causing cancer and/or heritable genetic damage)
Recommended monitoring procedures The UK follow MDHS 59 specific for MMVF	"Man-made mineral fibre - Airborne number concentration by phase-contrast light microscopy" and MDHS 14/3 "General methods for sampling and gravimetric analysis of respirable and inhalable dust". WHO-EURO method: Determination of airborne fibre number concentrations; A recommended method, by phase-contrast optical microscop
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures
No additional information available

8.1.3. Air contaminants formed
No additional information available

8.1.4. DNEL and PNEC

Aluminosilicate refractory ceramic fibres (142844-00-6)	
DNEL/DMEL (additional information)	
long term - Local, Inhalation	2,17 f/ml

Additional information
The DNEL cited in the long term exposure section above is based on the incidence of lung tumours (non-significant at all treatment levels) in a multi-dose rat study reported by Mast et al (Inhalation Toxicology, 1995, 7 (4), 469-502) which demonstrates a NOAEL of 162 f/ml and leads to the calculated endpoint specific DNEL of 2.17 f/ml.
SCOEL have recommended an OEL for RCF of 0.3 f/ml based on measured lung function in exposed workers. Assuming 45 years exposure, the average cumulative exposures of 147.9 (all workers in the high exposure group) and 184.8 fmo/ml (workers 60+ years of age in the high exposure group) –

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equivalent fibre concentrations of 0.27 and 0.34 f/ml respectively – were considered as no observed adverse effect levels for lung function and SCOEL therefore proposed an OEL of 0.3 f/ml. This in considerably lower than the calculated DNEL value.

8.1.5. Control banding
No additional information available

8.2. Exposure controls
8.2.1. Appropriate engineering controls
Appropriate engineering controls:
Ensure good ventilation of the work station.

8.2.2. Personal protection equipment
Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection
Eye protection:
Where excessive dust may result, wear goggles. Safety glasses with side shields. EN 166

8.2.2.2. Skin protection
Skin and body protection:
Impervious clothing. Do not take working clothes home

Hand protection:
Leather protective gloves

8.2.2.3. Respiratory protection
Respiratory protection:
If dust are formed : Wear appropriate mask. (FFP3)

8.2.2.4. Thermal hazards
No additional information available

8.2.3. Environmental exposure controls
Environmental exposure controls: Avoid release to the environment.

Other information:
Do not eat, drink or smoke during use; Do not take working clothes home; Separate working clothes from town clothes. Launder separately Uses and Risk Management Measures (RMM)

Intended use
Secondary use – Conversion into wet and dry mixtures and articles.
Process would include: Mixing forming operations, handling of RCF/ASW products, assembly of RCF/ASW containing products, machine and hand finishing of RCF/ASW products.
Reference ES 2*

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RMM - Hierarchy of Controls

- Where it is practical to do so, automatically feed RCF/ASW in to the process - Where practical to do so, segregate dry and wet processing - Enclose the process where practically possible.
- Where practical to do so, segregate machine areas and restrict access to operators involved in the process.
- Enclose Machines as far as practically possible.
- Install LEV where possible, when machine finishing, handling, compressing and hand cutting to remove dust at source - Employ experienced personnel – trained in the correct use of fibrous products
- PPE and RPE used for all dusty tasks
- Provide vacuum cleaner connection point to central system where practical or use a portable HEPA vacuum
- Regular clean up – using a wet scrubbing unit where practically possible and in general a HEPA vacuum should be used.
- Dry brushing and use of compressed air should be prohibited
- Waste materials to be contained at source, labelled and stored separately for disposal or recycling.

Intended use
Tertiary use - maintenance and service life (Industrial or professional use)
Process: Small scale repairs involving removal and installation of RCF/ASW products. Use of the product in an enclosed system, where there is occasional control access or no access.
Reference ES 3*
RMM - Hierarchy of Controls

- Use pre-cut, pre-sized pieces where practically possible.
- Allow access only to trained (authorised) operators
- Where practically possible, perform all hand cutting in a segregated area, on a down draft bench.
- Clean up work area regularly during the shift using a HEPA equipped vacuum cleaner.
- Prohibit use of dry brushing and compressed air cleaning.

- Bag and seal waste immediately at source.
- Use PPE and RPE appropriate to task.
- Employ good hygiene practices.

Intended use
Tertiary use- installation and removal (industrial or professional).
Large scale removal and installation of RCF/ASW from Industrial processes. Large scale removal and installation by professionals.
Reference ES 4*
RMM - Hierarchy of Controls

- Where practically possible enclose or segregate the work area.
- Allow only authorised personnel.
- Pre-wet insulation prior to removal where practically possible.
- Where practically possible use a water lance for removal or vacuum-truck.
- Use down draft bench for hand cutting products.
- Cover pre-cut section during transport and storage to prevent secondary exposure.

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- Where practically possible provide multiple vacuum hoses for convenient cleanup of spillage or use portable HEPA filtered vacuums.
- Bag waste materials immediately at source
- Prohibit use of dry brushing and or compressed air cleaning.
- Experienced personnel only
- Use appropriate PPE and RPE appropriate to expected concentrations.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	: Solid
Colour	: white. Beige.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: > 1650 °C Fibres
Freezing point	: Not applicable
Boiling point	: Not applicable
Flammability	: Non flammable
Explosive properties	: Not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not self-igniting
Decomposition temperature	: Not available
pH	: Not applicable
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Solubility	: Water: < 1 mg/l
Partition coefficient n-octanol/water (Log Kow)	: Not applicable
Partition coefficient n-octanol/water (Log Pow)	: Not applicable
Vapour pressure	: Not applicable
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

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9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1) : Not applicable

Other properties

Length weighted geometric mean diameter of fibres contained in the product:
1.4 - 3 µm

10. STABILITY AND REACTIVITY

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under normal use.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Do contain organics and on first heating can liberate VOCs.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity (oral):
Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (dermal):

Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (inhalation):

Not classified (Based on available data, the classification criteria are not met)

Skin corrosion/irritation:

Not classified (Based on available data, the classification criteria are not met) pH: Not applicable

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Serious eye damage/irritation:
Not classified (Based on available data, the classification criteria are not met) pH: Not applicable

Respiratory or skin sensitisation:
Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity:
Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity:
May cause cancer by inhalation. (Based on available data, the classification criteria are not met)

Additional information:
Fibres
May cause cancer by inhalation. Method: Nose only Inhalation.
Multi-dose Species: Rat, Dose: 3 mg/m3, 9 mg/m3 and 16 mg/m3 for 24 months Results: Minimal to mild lung fibrosis at 9mg/m3 and 16 mg/m3. No evidence of RCF- related lung tumours at "any of these doses."

Method: Nose only Inhalation.
Single dose Species: Rat, Dose: 30 mg/m3.
Results: This study was designed to test the chronic toxicity and carcinogenicity of RCF at extreme exposures. Tumour incidence (incl. mesothelioma) was raised at this dose level. The presence of overload conditions (only detected after the experiment was completed), whereby the delivered dose exceeded the clearance capability of the lung, makes meaningful conclusions in terms of hazard and risk assessment difficult.

Reproductive toxicity:
Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure:
Not classified (Based on available data, the classification criteria are not met)

STOT-repeated exposure:
Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard:
Not classified (Not relevant)

Fiberfrax Modules, Fiberfrax Blankets, Fiberfrax Textiles	
Viscosity, kinematic	Not applicable

11.2. Information on other hazards
11.2.1. Endocrine disrupting properties
No additional information available

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11.2.2. Other information
Other information :

Basic toxicokinetic
Exposure is predominantly by inhalation or ingestion. Man made vitreous fibres of a similar size to RCF/ASW have not been shown to migrate from the lung and/or gut and do not become located in other parts of the body When compared to many naturally occurring minerals, RCF/ASW has a low ability to persist and accumulate in the body (half-life of long fibres (> 20 µm) in 3 week rat inhalation test is approx. 60 days).

Human toxicological data
In order to determine possible human health effects following RCF exposure, the University of Cincinnati has been conducting medical surveillance studies on RCF workers in the U.S. The Institute of Occupational Medicine (IOM) has conducted medical surveillance studies on RCF workers in European manufacturing facilities.
Pulmonary morbidity studies among production workers in Europe and USA have demonstrated an absence of interstitial fibrosis and no loss in lung function was observed in the longitudinal study with RCF exposure. A statistically significant correlation between pleural plaques and cumulative RCF exposure was evidenced in the USA longitudinal study. The USA mortality study did not show evidence of increased lung tumour development either in the lung parenchyma or in the pleura.

Irritant Properties
Negative results have been obtained in animal studies (EU method B 4) for skin irritation. Inhalation exposures using the nose only route produce simultaneous heavy exposures to the eyes, but no reports of excess eye irritation exist. Animals exposed by inhalation similarly show no evidence of respiratory tract irritation.
Human data confirm that only mechanical irritation, resulting in itching, occurs in humans, Screening at manufacturers' plants in the UK has failed to show any human cases of skin conditions related to fibre exposure.

12. ECOLOGICAL INFORMATION

12.1. Toxicity
Ecology - general:
The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short–term (acute)
Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long–term (chronic)
Not classified (Based on available data, the classification criteria are not met)

12.2. Persistence and degradability

Fiberfrax Modules, Fiberfrax Blankets, Fiberfrax Textiles
Not applicable.

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12.3. Bioaccumulative potential

Fiberfrax Modules, Fiberfrax Blankets, Fiberfrax Textiles	
Partition coefficient n-octanol/water (Log Pow)	Not applicable
Partition coefficient n-octanol/water (Log Kow)	Not applicable
Bioaccumulative potential	Not applicable.

12.4. Mobility in soil

Fiberfrax Modules, Fiberfrax Blankets, Fiberfrax Textiles	
Ecology – soil	Not applicable

12.5. Results of PBT and vPvB assessment

This substance/mixture does not meet the PBT criteria of REACH regulation annex XII
This substance/mixture does not meet the vPBT criteria of REACH regulation annex XII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste treatment methods:
Disposal must be done according to official regulations. European waste catalogue. Do not discharge into drains or the environment. Do not dispose of with domestic waste.

Product/Packaging disposal recommendations:
Recycle or dispose of in compliance with current legislation.

European List of Waste (LoW) code:
16 03 03* - inorganic wastes containing dangerous substances
HP Code : HP7 - “Carcinogenic:” waste which induces cancer or increases its incidence

14. TRANSPORT INFORMATION

In accordance with ADR, RID, IATA, IMDG, ADN.

ADR	IMDG	IATA	AND	RID
14.1 UN Number				
Not regulated for transport				
14.2 UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3 Transport hazard class(es)				

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Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4 Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5 Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available.				

14.6 Special precautions for user

Overland transport
Not applicable

Transport by sea
Not applicable

Air transport
Not applicable

Inland waterway transport
Not applicable

Rail transport
Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

15. REGULATORY INFORMATION

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

15.1.1. EU-Regulations

Other information, restriction and prohibition:
Take note of Directive 94/33/EC on the protection of young people at work. Take note of regulations Directive 92/85/EC on the safety and health of pregnant workers at work. Directive (EC) 2017/2398 . A safety data sheet is not required for this product under Article 31 of REACH. This Product Safety Information Sheet has been created on a voluntary basis.

REACH Annex XVII (Restriction List)
Not applicable.
REACH Annex XIV (Authorisation List)
Not applicable.
REACH Candidate List (SVHC)
Contains one substance (s) from the list of candidate substances of REACH in a concentration > 0,1%:
Aluminosilicate refractory ceramic fibres (CAS 142844-00-6)
PIC Regulation (Prior Informed Consent)
Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

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POP Regulation (Persistent Organic Pollutants)
Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)
Ozone Regulation (1005/2009)
Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)
Explosives Precursors Regulation (2019/1148)
Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)
Drug Precursors Regulation (273/2004)
Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations
United Kingdom
National regulations : Take note of Directive 92/85/EC on the safety and health of pregnant workers at work.

15.2. Chemical safety assessment
A chemical safety assessment has been carried out
For the following substances of this mixture a chemical safety assessment has been carried out:
Aluminosilicate refractory ceramic fibres.

16. OTHER INFORMATION

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer

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IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative
CAS-No.	Chemical Abstract Service number

Data sources:
ECHA (European Chemicals Agency).

Other information:
Please refer to specific technical data sheet for more information. Please refer to the list of products considered to be articles.

CARE PROGRAMME
ECFIA, representing the high temperature insulation wool (HTIW) industry, has undertaken an extensive industrial hygiene programme to provide assistance to the users of all products containing HTIW.
The objectives are twofold:

- to monitor workplace dust concentrations at both manufacturers' and customers' premises.
- to document manufacturing and use of HTIW products from an industrial hygiene perspective in order to establish appropriate recommendations to reduce exposures.

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PRECAUTIONARY MEASURES TO BE TAKEN AFTER SERVICE UPON REMOVAL

In almost all applications high temperature insulating wools products (HTIW) are used as an insulating material helping to maintain temperature at 900°C or more in a closed space. As produced, HTIW are vitreous (glassy) materials which, upon continued exposure to elevated temperatures (above 900 °C) might de-vitrify. The occurrence and extent of crystalline phase formation is dependent on the duration and temperature of exposure, fibre chemistry and/or the presence of fluxing agents. As only a thin layer of the insulation hot face side is exposed to high temperature, respirable dust generated during removal operations does not typically contain detectable levels of crystalline silica (CS).
In applications where the material is heat soaked, duration of heat exposure is normally short and a significant de-vitrification allowing CS to build up does not occur. This is the case for waste mould casting for instance.

Toxicological evaluation of the effect of the presence of CS in artificially heated HTIW material has not shown any increased toxicity in vitro and in vivo. The results from different combinations of factors like increased brittleness of fibres, or microcrystals embedded in the glass structure of the fibre and therefore not biologically available may explain the lack of toxicological effects.

IARC evaluation as provided in Monograph 68 is not relevant as CS is not biologically available in after service HTIW and respirable dust generated during removals operations generally do not contain detectable levels of crystalline silica..

High concentrations of fibres and other dusts may be generated when after-service products are mechanically disturbed during operations such as wrecking. Therefore ECFIA recommends:

- control measures are taken to reduce dust emissions; and
- all personnel directly involved wear an appropriate respirator to minimise exposure and comply with local regulatory limits.

Full text of H- and EUH-statements:	
Carc. 1B	Carcinogenicity (inhalation) Category 1B
H350i	May cause cancer by inhalation.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Carc. 1B	H350i	Calculation method

The information presented on this SDS (1) provides details on material identity, manufacturer/supplier information, hazard characterization and prevention, emergency response and other specialized information, (2) is considered to be accurate to the best of our knowledge, information and good faith belief as of the date of publication, (3) is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release of the material named, (4) should be read and used in conjunction with the company's relevant literature, (5) relates only to the specific material designated and may not be valid for such material used in combination with any other material or process and (6) is provided without warranty, expressed or implied, in law or in fact, of merchantability or fitness for a particular purpose. This document does not constitute a product specification and should not be relied on as such. Employers may use this SDS to supplement other information gathered by them in their efforts to assure the health and safety of their employees and the proper use of the product

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