



# Fibermax

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Date of issue: 11/22/2016 Revision date: 11/22/2016 Version: 1.00

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

#### 1.1. Product identifier

Trade name : Fibermax  
Chemical name : Polycrystalline wools (PCW)  
EC no : 614-074-2  
CAS No : 675106-31-7  
REACH registration No : 01-2119456884-25-0003  
Product code : 371

#### 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

#### 1.3. Details of the supplier of the safety data sheet

##### Supplier

Unifrax Limited  
Mill Lane, Rainford  
WA11 8LP St Helens, Merseyside - United Kingdom  
T + 44 (0) 1744 88 7600 - F + 44 (0) 1744 88 9916  
[reachsds@unifrax.com](mailto:reachsds@unifrax.com)

##### Email competent person

[reachsds@unifrax.com](mailto:reachsds@unifrax.com)

##### Distributor

Unifrax GmbH  
Kleinreinsdorf 62  
07989 Teichwolframsdorf - Germany  
T + 49 (0) 366 24 40020 - F + 49 (0) 366 24 40099

##### Distributor

Unifrax France  
17 Rue Antoine Durafour  
42420 Lorette - France  
T +33 (0) 4 7773 7000 - F +33 (0) 4 7773 3991

##### Distributor

Unifrax Derby  
Shaftsbury Street  
DE23 8XA Derby - United Kingdom  
T +44 (0) 1332 331808

##### Distributor

Unifrax s.r.o.  
Ruská 311, Pozorka  
417 03 Dubí 3 - Czech Republic  
T + 42 (0) 417 800 356 - F + 42 (0) 417 539 838  
[pskvara@unifrax.com](mailto:pskvara@unifrax.com)

##### Distributor

Unifrax Italia Srl  
Via Volonterio 19  
21047 Saronno (VA) - Italy  
T +39 02 967 01 808 - F +39 02 962 5721

##### Distributor

Unifrax Spain  
Cristobal Bordiu 20  
28003 Madrid - Spain  
T + 34 91 395 2279 - F + 34 91 395 2124

#### 1.4. Emergency telephone number

Emergency number : Occupational Hygiene and CARE: Tel: + 44 (0) 1744 887603; Email: [reachsds@unifrax.com](mailto:reachsds@unifrax.com); (8.15-17.10 h); Language : English

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Not classified

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

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

No labelling applicable

#### 2.3. Other hazards

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

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classification

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

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Polycrystalline wools (PCW)	(CAS No) 675106-31-7 (EC no) 614-074-2 (REACH-no) 01-2119456884-25-0003	-	Not classified

Comments : PCW can also be identified by a combination of CAS Numbers: 1344-28-1 (fibrous forms of Aluminium Oxide), 7631-86-9 (Silica, non-crystalline), or 1302-93-8 (Mullite)

Full text of H-statements: see section 16

#### 3.2. Mixtures

Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation : 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. Get medical advice if skin irritation persists.  
First-aid measures after eye contact : Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.  
First-aid measures after ingestion : Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/injuries after skin contact : mechanical irritation.  
Symptoms/injuries after eye contact : mechanical irritation.

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

Treat symptomatically.

### SECTION 5: Firefighting 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 : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

No additional information available

#### 5.3. Advice for firefighters

Firefighting instructions : Prevent fire fighting water from entering the environment.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Protective equipment : Concerning personal protective equipment to use, see section 8.  
Emergency procedures : Prohibit unauthorized persons.

##### 6.1.2. For emergency responders

Protective equipment : Ensure adequate ventilation. Concerning personal protective equipment to use, see section 8.  
Emergency procedures : Manipulations are to be done only by qualified and authorised persons.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Avoid sub-soil penetration.

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### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product. Minimize generation of dust. High efficiency particulate air filter (HEPA filter).

### 6.4. Reference to other sections

See section 7. See Heading 8. See Heading 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Use personal protective equipment as required. Obtain special instructions before use. Do not eat, drink or smoke when using this product. Clear contaminated areas thoroughly. Ensure good ventilation of the work station.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

### 7.3. Specific end use(s)

For professional users only. See Heading 8.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Polycrystalline wools (PCW) (675106-31-7)

United Kingdom	Remark (WEL)	TWA 8 hr 2 f/ml; 5 mg/m <sup>3</sup> (total dust); Machine-made mineral fibres: Work place Exposure Limit EH40
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### 8.2. Exposure controls

#### Hand protection:

protective gloves

#### Eye protection:

Safety glasses with side shields

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. If dust are formed : Short term exposure. (FFP2)

#### Other information:

Wash contaminated clothes.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Fibres.
Colour	: white.
Odour	: odourless.
Odour threshold	: No data available
pH	: Not applicable
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: > 1800 °C
Freezing point	: No data available
Boiling point	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available

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Flammability (solid, gas)	: No data available
Vapour pressure	: Not applicable
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 2 - 3.5 g/cm <sup>3</sup>
Solubility	: Water: < 1 mg/l
Log Pow	: No data available
Log Kow	: Not applicable
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

Other properties : Length weighted geometric mean diameter of fibres contained in the product: 3-4 µm.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under normal conditions of use.

### 10.2. Chemical stability

The product is stable at normal handling and storage conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known.

### 10.4. Conditions to avoid

No additional information available.

### 10.5. Incompatible materials

None.

### 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 toxicological effects

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

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### Other information

: Chronic effects:  
Lifetime rat inhalation studies of polycrystalline fiber show that at the maximum dose level tested, there was no evidence of lung cancer, lung fibrosis or any other significant adverse effect. Intraperitoneal, intratracheal and intrapleural studies in rats, together with two in vitro tests, have all shown negative results. Despite some study limitations, it is important to note the consistent lack of carcinogenic response in animal studies.

In 1988, the International Agency for Research on Cancer (IARC) considered the carcinogenicity of several groups of fibers. One grouping they considered was a poorly defined collection of disparate fiber types [polycrystalline fiber, refractory ceramic fiber (referred to as RCF) and single crystal whiskers] into a broad, single category they termed "ceramic fibers". The IARC monograph clearly indicated that test data specific to polycrystalline fibers were negative, but according to the IARC classification principles, positive results with other fiber types led to the conclusion that all fibers in the group should be considered as possible human carcinogens (IARC Category 2B). In a subsequent monograph on MMVF (2002), IARC did not specifically re-evaluate polycrystalline fiber. The Annual Report on Carcinogens prepared by the National Toxicology Program (NTP), (latest edition) classified "ceramic fibers (respirable size)" as reasonably anticipated to be carcinogens.

As produced most polycrystalline fibers, including Fibermax, have fiber diameters too large to be respirable. Numerous scientific studies suggest that the potential toxicity of a respirable fiber is directly related to bio-persistence (the length of time it take for the fiber to clear the lung). Based on limited in-vitro laboratory analysis, which measure the dissolution rate of fibers in simulated lung fluid, polycrystalline fibers are known to be relatively durable. Data from respiratory surveillance studies are not available for PCW workers. In a small cohort of workers exposed to PCW with historical co-exposures to RCF and other fibers, there was no evidence of interstitial lung disease on chest x-rays nor an accelerated rate of loss of lung function on pulmonary function testing. Symptom responses could not be attributed to or excluded from exposure to PCW as a consequence of the prior fiber exposures.

## SECTION 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.

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

#### Polycrystalline wools (PCW) (675106-31-7)

Log Kow	Not applicable
Bioaccumulative potential	Bioaccumulation unlikely.

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

#### Polycrystalline wools (PCW) (675106-31-7)

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

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations

: Dispose in a safe manner in accordance with local/national regulations.

European List of Waste (LoW) code

: 16 03 04 - inorganic wastes other than those mentioned in 16 03 03

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

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<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
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. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Polycrystalline wools (PCW) is not on the REACH Candidate List

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

A chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes:

General revision.

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
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DNEL	Derived-No Effect Level
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
PBT	Persistent Bioaccumulative Toxic
vPvB	Very Persistent and Very Bioaccumulative

Data sources : ECHA (European Chemicals Agency).

Other information : Occupational Hygiene: dawn.webster@unifrax.com. Please refer to specific technical data sheet for more information.

KFT SDS EU 10

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*The information presented herein is presented in good faith and believed to be accurate as of the effective date of this Safety Data Sheet. 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. This summary of the relevant data reflects professional judgment; employers should note that information perceived to be less relevant has not been included in this SDS. Therefore, given the summary nature of this document, Unifrax I LLC does not extend any warranty (expressed or implied), assume any responsibility, or make any representation regarding the completeness of this information or its suitability for the purposes envisioned by the user.*