

# FIBERMAX

According to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

## 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

### 1.1. Product identifier

Product form: Substance  
Trade name: Fibermax  
Chemical name: Polycrystalline wools (PCW)  
CAS-No: 675106-31-7  
REACH registration No: 01-2119456884-25-0003

### 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

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## 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 which do not result in classification:  
May cause mechanical irritation to the skin, eyes and respiratory system.  
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII  
This 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.

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# FIBERMAX

## 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)

### 3.2. Mixtures

Not applicable

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

First-aid measures general:

When in doubt or if symptoms are observed, get medical advice.

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. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion:

Rinse mouth. Do not induce vomiting.

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

Symptoms/effects after inhalation: Irritating to the respiratory system and mucous membranes. mechanical irritation.

Symptoms/effects after skin contact: May cause slight temporary irritation. mechanical irritation.

Symptoms/injuries after eye contact: May cause slight temporary irritation to ocular mucous membranes. mechanical irritation.

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

Treat symptomatically.

# FIBERMAX

## 5. FIRE FIGHTING MEASURES

### 5.1. Extinguishing media

Suitable extinguishing media: The product is not flammable. 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

Fire hazard: Non flammable.

Explosion hazard: Product is not explosive.

Hazardous decomposition products in case of fire: None.

### 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

## 6. ACCIDENTAL RELEASE MEASURES

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

General measures: Avoid dust formation. 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.

#### 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.

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

Methods for cleaning up : Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. 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

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

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## 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Additional hazards when processed: Extraction to remove dust at its source.

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

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.

## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

### 8.1. Control parameters

#### 8.1.1. National occupational exposure and biological limit values

Polycrystalline wools (PCW) (675106-31-7)	
United Kingdom - Occupational Exposure Limits	
Local name	MMMF (Machine-made mineral fibre)
WEL TWA (OEL TWA) [1]	5 mg/m <sup>3</sup> (except for refractory ceramic fibres and special purpose fibres)
WEL TWA (OEL TWA) [2]	2 fibers/ml (except for refractory ceramic fibres and special purpose fibres)
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

No additional information available

#### 8.1.5. Control banding

No additional information available

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## 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

#### 8.2.2.1. Eye and face protection

Eye protection: Safety glasses with side shields. EN 166

#### 8.2.2.2. Skin protection

Skin and body protection: Wear proper protective equipment

Hand protection: Leather protective gloves

#### 8.2.2.3. Respiratory protection

Respiratory protection: Dust production: dust mask with filter type P2

#### 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 when using this product. Do not take working clothes home. Wash contaminated clothing before reuse. Separate working clothes from town clothes.

Laundry separately.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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

Physical state	Solid
Colour	White.
Appearance	Fibres.
Odour	Odourless.
Odour threshold	Not available
Melting point	> 1800 °C
Freezing point	Not available
Boiling point	Not available
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
Solubility	Water: < 1 mg/l

# FIBERMAX

Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure	Not available
Vapour pressure at 50°C	Not available
Density	2 – 3.5 g/cm <sup>3</sup>
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

## 9.2. Other information

### 9.2.1. Information with regard to physical hazard classes

No additional information available

### 9.2.2. Other safety characteristics

No additional information available

## 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

# FIBERMAX

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity:

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)

Polycrystalline wools (PCW) (675106-31-7)	
LD50 oral rat	> 4000 mg/kg bodyweight (OECD 407 method)

Skin corrosion/irritation:

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

Additional information : (OECD 404 method)

Serious eye damage/irritation:

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

Additional information : (OECD 492 method)

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)

Additional information: (OECD 471 method) (OECD 487 method)

Carcinogenicity:

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

Additional information : (OECD 451 method)

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)

# FIBERMAX

## 11.2. Information on other hazards

### 11.2.1. Endocrine disrupting properties

### 11.2.2. 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 Saffil, 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 takes 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.

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

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

Polycrystalline wools (PCW) (675106-31-7)	
Persistence and degradability	Not applicable.

### 12.3. Bioaccumulative potential

Polycrystalline wools (PCW) (675106-31-7)	
Bioaccumulative potential	Not applicable.



# FIBERMAX

## 12.4. Mobility in soil

Polycrystalline wools (PCW) (675106-31-7)	
Ecology - soil	Not applicable.

## 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

## 12.6. Other adverse effects

No additional information available

## 12.7. Other adverse effects

No additional information available

## 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Waste treatment methods: European waste catalogue.

Product/Packaging disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.

European List of Waste (LoW) code: 17 06 04 - insulation materials other than those mentioned in 17 06 01 and 17 06 03

## 14. TRANSPORT INFORMATION

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

ADR	IMDG	IATA	ADN	RID
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### 14.1. UN number

Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
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### 14.2. UN proper shipping name

Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

### 14.3. Transport hazard class(es)

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
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### 14.5. Environmental hazards

Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

# FIBERMAX

## 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

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

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)

# FIBERMAX

## 15.1.2. National regulations

No additional information available

## 15.2. Chemical safety assessment

No additional information available

## 16. OTHER INFORMATION

### Indication of changes:

#### General revision.

#### Abbreviations and acronyms:

ADN	Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen sur le transport des marchandises dangereuses par Route (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 Code for 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
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
DMEL	Derived Minimal Effect level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
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
PNEC	Predicted No-Effect Concentration
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit