

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

**FINOVLIES Mould Ring Liners**

Print date: 12.02.2014

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier****FINOVLIES Mould Ring Liners**

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

Lining of the mould ring for an unimpeded expansion of the investment material.

**Uses advised against**

No further data.

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

Company name:	<b>FINO GmbH</b>	
Street:	Mangelsfeld 18	
Place:	D-97708 Bad Bocklet	
Telephone:	+49-97 08-90 94 20	Telefax: +49-97 08-90 94 21
e-mail:	info@fino.com	
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e-mail:	info@fino.com	
Internet:	www.fino.com	

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Indications of danger: Xi - Irritant  
R phrases:  
Irritating to skin.  
May cause cancer by inhalation.

**GHS classification**

Hazard Statements:  
May cause respiratory irritation.  
Suspected of causing cancer by inhalation.

**2.2. Label elements**

Signal word: Danger

Pictograms:

**Hazard statements**

H335	May cause respiratory irritation.
H351	Suspected of causing cancer by inhalation.

**Precautionary statements**

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P310	Immediately call a POISON CENTER or doctor/physician.
P321	Specific treatment (see - on this label).
P363	Wash contaminated clothing before reuse.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin

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- P304+P340 with water/shower.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P405 Store locked up.

### Additional advice on labelling

Product is classified and labelled in accordance with EC regulations or the corresponding national laws.

### 2.3. Other hazards

The fibre is classified as „a carcinogen substance according to category 2" according to TRGS 905 as well as EU directive 97/67/EC. (Substances that should be regarded as carcinogen for humans) In October 2001 the IARC (International Agency for Research on Cancer) has confirmed that category 2b (potentially carcinogen for humans) apply as a appropriate IARC classification for RCF fibres  
Exposure to fibre dust may lead to a slight irritation of skin, eyes and the upper respiratory tract. Experiments in animals have shown that extended exposure to a high dosage of ceramic fibre dusts may cause damage of the lungs (fibrosis, development of tumours).  
Critical health hazards are not to expect ed if the recommended use and the valid threshold values are observed.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

ceramic fibre paper with quality designation 1260. (2-15%)

#### Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
231-545-4	Siliciumdioxide, colloidal	45-60 %
7631-86-9		
215-208-9	Sodium oxide	<-18 %
1313-59-3	C - Corrosive R14-34	
	Skin Corr. 1B; H314	
215-138-9	Calcium oxide	<-18 %
1305-78-8	C - Corrosive R34	
	Skin Corr. 1B; H314	

Full text of R and H phrases: see Section 16.

#### Further Information

none

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Remove affected person from the danger area and lay down.  
Irritations and inflammations are ascribed to the possible mechanical rubbing of the substance.

#### After inhalation

Provide fresh air.

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In case of respiratory tract irritation, consult a physician.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap.

**After contact with eyes**

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart.

In case of troubles or persistent symptoms, consult an ophthalmologist.

**After ingestion**

Do not induce vomiting.

Call a physician immediately.

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

No effects known.

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

No specific information.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**Extinguishing media which must not be used for safety reasons**

No specific information.

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

The product itself doesn't burn.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

none

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Wear personal protection equipment.

Keep unprotected persons away.

Avoid generation of dust.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

Collect in closed containers for disposal.

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

Use approved industrial vacuum cleaner for removal.

Take up dust-free and set down dust-free.

Clean contaminated objects and areas thoroughly observing environmental regulations.

**6.4. Reference to other sections**

See protective measures under point 7 and 8.

Treat the recovered material as prescribed in the section on waste disposal.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Avoid generation of dust.

If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

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All work processes must always be designed so that the following is excluded: Do not breathe dust.

### Advice on protection against fire and explosion

Usual measures for fire prevention.

### Further information on handling

No special handling instructions are necessary.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Store under normal and dry conditions.

#### Advice on storage compatibility

Keep away from food, drink and animal feedingstuffs.

#### Further information on storage conditions

No special precautionary measures.

Storage class

Ordinance on Industrial Safety and Health (BetrSichV). ---

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
1309-48-4	Magnesium oxide	-	1,5	-	TWA (8 h)	MAK
		-	-	-	STEL (15 min)	MAK
7631-86-9	Siliciumdioxide, colloidal	4,000	4	-	TWA (8 h)	
		-	-	-	STEL (15 min)	
1344-28-1	Aluminiumoxide, fibre dusts	-	-	10000	TWA (8 h)	
		-	-	-	STEL (15 min)	
1305-78-8	Calcium oxide	-	2	-	TWA (8 h)	WEL
		-	-	-	STEL (15 min)	WEL

#### Additional advice on limit values

Keep the formation of dust low through technical protective measures e.g. dust extraction. Especially for this field of activity: Access to the affected area should be restricted to the absolutely necessary, minimum number of persons.

### 8.2. Exposure controls



#### Occupational exposure controls

Use technical precautions (dust extraction and other technical installations) to reduce the dust formation.

#### Protective and hygiene measures

The usual precautionary measures are to be adhered to when handling chemicals.

When using do not eat, drink or smoke.

Wash hands before breaks and after work.

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#### Respiratory protection

Half-face mask or quarter facepiece: maximum use concentration for substances with exposure limits: P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 10 times the exposure limit. P3 filter: up to a max. of 30 times the expo limit.  
 Full-face mask or mouthpiece with particulate filter: maximum use concentration for substances with exposure limits: P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 15 times the exposure limit. P3 filter: up to a max. of

#### Hand protection

Protective gloves

#### Eye protection

Tightly sealed safety glasses.  
 Do not wear contact lenses.

#### Skin protection

Only wear fitting, comfortable and clean protective clothing.

### SECTION 9: Physical and chemical properties

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

Physical state: fibre strips  
 Colour: white  
 Odour: odourless

pH-Value: not applicable

#### Changes in the physical state

Melting point: 1650 °C  
 Boiling point: not applicable  
 Softening point: not determined  
 Flash point: not applicable

#### Flammability

Solid: not applicable

#### Explosive properties

Product is not explosive.

Lower explosion limits: ---

Upper explosion limits: ---

Ignition temperature: not applicable

#### Auto-ignition temperature

Solid: not applicable

Vapour pressure: not applicable

Density: \*

Water solubility: insoluble

Viscosity / dynamic: ---

#### Test method

#### 9.2. Other information

\*density: 200-300 kg/m<sup>3</sup>

### SECTION 10: Stability and reactivity

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**10.1. Reactivity**

No data available

**10.2. Chemical stability**

No information available.

**10.3. Possibility of hazardous reactions**

Not known.

**10.4. Conditions to avoid**

Avoid generation of dust.

**10.5. Incompatible materials**

Oxidizing agents, strong. Alkalis (alkalis), concentrated.

**10.6. Hazardous decomposition products**

No dangerous decomposition products known.

**Further information**

none

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity**

Toxicological analyses are not available.

**Specific effects in experiment on an animal**

In earlier studies ceramic fibres together with other artificial mineral fibres were regarded as inactive. In the 70s and 80s tumours were observed after intra pleural and intra peritoneal injection but the different inhalation studies have lead to indecisive results.

In 1990 chronic inhalation studies, known as „RCC experiments" were conducted with fibre samples of different sizes. Fibrosis, lung tumours and mesothelioms were observed in animals, which were exposed to very high concentrations for 24 month. Afterwards it was discovered that the process of selection of the different fibre dimensions had resulted in a precarious contamination of the samples with non-fibre particles.

The inhaled particles lead consequently to conditions, which constrained the self-cleaning effect of the lung so far that an overload situation resulted. Experts are presently busy looking into the validity of the results from the „RCC Experiments".

In further tests scientifically sound fibre samples showed a considerably lower bioactivity.

**Irritation and corrosivity**

Results for the test according to proven methods (directive 67/548/EC, appendix 5, method B4) were negative for the ceramic fibres. All artificial mineral fibres as well as some natural fibres might cause a slight irritation with the result of a light itch or rather rarely in case of sensitive skin types a slight reddening of the skin. Compared to other irritation these are not allergenic or chemical skin damages but exclusively a mechanical effect of temporary nature.

**Sensitising effects**

No sensitizing effect known.

**Severe effects after repeated or prolonged exposure**

In connection with the exposure to ceramic fibres diseases have not been reported although these fibres have been used for the last forty years. Research concerning the affection of the lungs has been done among European and American workers. American research reports about deposits on the pleura (pleural plaque) in 2.9% of the examined workers. The plaque neither causes any symptoms nor does it develop to a disease.

**Carcinogenic/mutagenic/toxic effects for reproduction**

The fibre is classified as „a carcinogen substance according to category 2" according to TRGS 905 as well as EU directive 97/67/EC. (Substances that should be regarded as carcinogen for humans) In October 2001 the IARC (International Agency for Research on Cancer) has confirmed that category

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2b (potentially carcinogen for humans) apply as a appropriate IARC classification for RCF fibres

**Additional information on tests**

No further information.

**Empirical data on effects on humans**

No special references.

No special precautionary measures.

**SECTION 12: Ecological information****12.1. Toxicity**

If used in accordance with specifications no environmental effects are to expect.

**12.2. Persistence and degradability**

No classification known.

**12.3. Bioaccumulative potential**

No indication of bio-accumulation potential.

**12.4. Mobility in soil**

Void

**12.5. Results of PBT and vPvB assessment**

This substance does not meet the criteria for classification as PBT or vPvB.

**12.6. Other adverse effects**

No effects known.

**Further information**

none

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Advice on disposal**

Dust deposits. Collect in closed containers for disposal.  
Hand over to officially registered waste disposal company.  
Dispose of waste according to applicable legislation.

**Waste disposal number of waste from residues/unused products**

101299 WASTES FROM THERMAL PROCESSES; wastes from manufacture of ceramic goods, bricks, tiles and construction products; wastes not otherwise specified

**Waste disposal number of used product**

101299 WASTES FROM THERMAL PROCESSES; wastes from manufacture of ceramic goods, bricks, tiles and construction products; wastes not otherwise specified

**Contaminated packaging**

Dispose of waste according to applicable legislation.  
Non-contaminated packaging can be supplied to a recycling system.

**SECTION 14: Transport information****Land transport (ADR/RID)**

**14.1. UN number:** 0000

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**Other applicable information (land transport)**

Not restricted

**Inland waterways transport (ADN)**

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- 14.1. UN number:** 0000
- 14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.
- Other applicable information (inland waterways transport)**  
Not restricted

**Marine transport (IMDG)**

- 14.1. UN number:** 0000
- 14.2. UN proper shipping name:** Not a hazardous material with respect to transportation regulations.
- Other applicable information (marine transport)**  
Not restricted

**Air transport (ICAO)**

- UN/ID number:** 0000
- 14.2. UN proper shipping name:** Not a hazardous material with respect to transportation regulations.
- Other applicable information (air transport)**  
Not restricted

**14.5. Environmental hazards**

Dangerous for the environment: no

**14.6. Special precautions for user**

No special precautionary measures are necessary.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

No special precautionary measures.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

1999/13/EC (VOC): none

**Additional information**

No further data.

**National regulatory information**

Water contaminating class (D): - - not water contaminating

**Additional information**

No further data.

Ordinance on Industrial Safety and Health (BetrSichV). ---

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Full text of R phrases referred to under Sections 2 and 3**

- 14 Reacts violently with water.
- 34 Causes burns.
- 38 Irritating to skin.
- 49 May cause cancer by inhalation.

**Full text of H statements referred to under Sections 2 and 3**

- H314 Causes severe skin burns and eye damage.
- H335 May cause respiratory irritation.



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H351 Suspected of causing cancer by inhalation.

**Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.