



**Trade Name: REFCON plus**

Company / Supplier: CALUCEM GmbH, Besselstraße 8, D- 68219 Mannheim

Telephone: +49 - 621-10759-0, Date of issue: 20.04.2016 Replaces Data Sheet of: ---

**SECTION 3: Composition/information on ingredients****3.1 Substances**

n.ap.

**3.2 Mixtures****Chemical Characterisation:**

Mixture calcium aluminate clinker with additives

**Ingredients:**

Material			H - phrases	m% - range
CAS - No.	EC - No.	REACH - No.		
Calcium, alumina cement			n.av.	> 75%
65997-16-2	266-045-5	n.av.		

Text of H - phrases: see section 16

**SECTION 4: First aid measures****4.1 Description of first aid measures****4.1.1 Inhalation:**

Move to fresh air.

If symptoms persist, call a physician.

**4.1.2 Skin Contact:**

Before washing use a dry brush to remove dust from skin. Wash off with soap and water.

Consult a physician if necessary.

**4.1.3 Eye Contact:**

Call a physician immediately. In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**4.1.4 Ingestion:**

Consult a physician.

Do not induce vomiting. Rinse mouth.

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

Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough.

According to concentration, aqueous solution causes irritation or burns of eyes, skin and mucous membranes.

Risk of infection of the lung after prolonged inhalation of dust particles.

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

Treat symptomatically.

**SECTION 5: Firefighting measures****5.1 Extinguishing media****5.1.1 Suitable Extinguishing Media:**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Knock down dust with water spray jet.

**5.1.2 Extinguishing Media to Avoid:**

High volume water jet..

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

In the event of fire respirable dust may be formed.

**5.3 Advice for firefighters****5.3.1 Special Protective Equipment:**

Wear positive pressure self-contained breathing apparatus. Wear full protective clothing.

**5.3.2 Additional Information:**

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In contact with water. Spilled material will solidify.

Allow to solidify, use mechanical handling equipment.

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**SECTION 6: Accidental release measures**

- 6.1 **Personal precautions, protective equipment and emergency procedures**  
See chapter 8.2.2  
Avoid dust formation.
- 6.2 **Environmental precautions**  
Do not flush into surface water or sanitary sewer system.  
Do not allow material to contaminate ground water system.
- 6.3 **Methods and material for containment and cleaning up**  
Shovel or sweep up. Avoid dust formation. Breathing apparatus only if dust is formed.  
In contact with water: Allow to solidify, use mechanical handling equipment.
- 6.4 **Reference to other sections**  
None.

**SECTION 7: Handling and storage**

- 7.1 **Precautions for safe handling**
- 7.1.1 **Precautions for Safe Handling:**  
Avoid contact with the skin and the eyes.  
Remove and wash contaminated clothing before re-use.  
When using, do not eat, drink or smoke.  
Wash hands before breaks and immediately after handling the product.
- 7.1.2 **Precautions in Case of Fire and Explosion:**  
No special precautions required. Normal measures for preventive fire protection.
- 7.2 **Conditions for safe storage, including any incompatibilities**
- 7.2.1 **Storage Instructions:**  
Keep tightly closed in a dry, cool and well-ventilated place.  
Never allow product to get in contact with water during storage.
- 7.2.2 **Store away from:**  
Do not store together with strong acids and oxidizing agents.
- 7.2.3 **Further Information on Storage Conditions:**  
None.
- 7.3 **Specific end use(s)**  
n.av.

**SECTION 8: Exposure controls/personal protection**

- 8.1 **Control parameters**
- | <b>Material</b>         | <b>Limit Value</b>    |
|-------------------------|-----------------------|
| Calcium, alumina cement | 6 mg / m <sup>3</sup> |
- 8.2 **Exposure controls**
- 8.2.1 **Appropriate engineering controls**  
Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.
- 8.2.2 **Individual protection measures**
- 8.2.2a **Respiratory Protection:** In the case of dust formation use respirator with an approved filter.  
Recommended Filter type: P1 - P3
- 8.2.2b **Hand Protection:** Protective gloves (nitrile impregnated cotton, break through time > 6h)  
The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- 8.2.2c **Eye Protection:** Tightly fitting safety goggles
- 8.2.2d **Skin Protection:** Protective suit
- 8.2.2e **Further Information:** Observe wearing time limits:
- 8.2.3 **Environmental exposure controls:**  
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**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

9.1.1	<b>Form:</b> powder	<b>Colour:</b> grey	<b>Odour:</b> odourless
			<b>Odour threshold:</b> n.av.
9.1.2	pH-value, undiluted:	n.ap.	
	pH-value, 10% aqueous solution:	< 11,5	
9.1.3	Boiling point / Boiling - range (°C):	n.ap.	
	Melting point / Melting range (°C):	~ 1540	
9.1.4	Flash point (°C):	n.ap., closed cup	
9.1.5	Flammability (EEC A10/A13):	None.	
9.1.6	Ignition temperature (°C):	n.av.	
9.1.7	Autoflammability (EEC A16):	None.	
9.1.8	Oxidising properties:	No.	
9.1.9	Explosion hazard:	No.	
9.1.10	Explosion limits (Vol.%) lower:	n.av., upper: n.av.	
9.1.11	Vapour pressure:	n.av.	
	Vapour density (Air = 1):	n.ap.	
9.1.12	Density (g/ml):	3,2	
9.1.13	Solubility (in Water):	practically insoluble	
9.1.14	Partition coefficient, n-Octanol / Water:	n.av.	
9.1.15	Viscosity:	granular	
9.1.16	Solvent content (m %):	Not applicable	
9.1.17	Thermal decomposition (°C):	n.av.	
9.1.18	Evaporation rate:	n.av.	
9.2	<b>Other information</b>		
	n.av.		

**SECTION 10: Stability and reactivity**

10.1	<b>Reactivity</b>
	None.
10.2	<b>Chemical stability</b>
	Stable under normal conditions. Never allow product to get in contact with water during storage.
10.3	<b>Possibility of hazardous reactions</b>
	Reacts violently with water (exothermic reaction). Allow to solidify.
10.4	<b>Conditions to avoid</b>
	Exposure to moisture. Never allow product to get in contact with water during storage.
10.5	<b>Incompatible materials</b>
	Incompatible with strong acids and oxidizing agents, humid air and water.
10.6	<b>Hazardous decomposition products</b>
	No decomposition if stored and applied as directed.

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**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

Acute Health Effects:

Inhalation: n.av.

Ingestion: n.av.

Skin Contact: n.av.

Skin corrosion / irritation: May cause skin irritation with susceptible persons.

Serious eye damage / irritation: May cause eye irritation with susceptible persons.  
According to concentration, aqueous solution causes irritation or burns of eyes, skin and mucous membranes.  
Danger of mechanical damage of cornea.

Respiratory or skin sensitisation: n.av.

Germ cell mutagenicity: n.av.

Carcinogenicity: n.av.

Reproductive toxicity: n.av.

STOT-single exposure: n.av.

STOT-repeated exposure: n.av.

Aspiration hazard: n.av.

**11.1.1 – Practical Experience**

11.1.11 n.av.

**11.1.12 Practical Experience**

Observations relevant for classification:

None.

Further Observations:

Risk of infection of the lung after prolonged inhalation of dust particles.

Classification of the preparation has been done by calculation in accordance with EEC directives.

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

We have no quantitative data concerning the ecological effects of this product.

**12.2 Persistence and degradability**

The methods for determining biodegradability are not applicable to inorganic substances.

In contact with water: Allow to solidify, use mechanical handling equipment.

Disturbance aquatic environment None reasonably foreseeable.

**12.3 Bioaccumulative potential**

n.av.

**12.4 Mobility in soil**

n.av.

**12.5 Results of PBT and vPvB assessment**

n.av.

**12.6 Other adverse effects**

12.6.1 COD-Value, mg/g: n.av.

12.6.2 BOD5-Value, mg/g: n.av.

12.6.3 AOX-Remarks: Not applicable.

12.6.4 Significant Components: None.

12.6.5 Other adverse effects: Not applicable.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

13.1.1 Recommendation: Where possible recycling is preferred to disposal or incineration. Waste - Code - No.:

The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

In addition comply with the regional authorities.

**13.2 Contaminated Packaging**

13.2.1 Recommendation: Wash with suitable cleaner. Otherwise as described under Residues.

13.2.2 Safe Handling: As described under Residues.

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**SECTION 14: Transport information**

	<b>ADR</b>	<b>IMDG</b>	<b>IATA</b>
	Not a dangerous substance as defined in the above regulations.		
14.1	<b>UN number</b>		
14.2	<b>UN proper shipping name</b>		
14.3	<b>Transport hazard class(es)</b>		
14.4	<b>Packing group</b>		
14.5	<b>Environmental hazards</b>		
14.6	<b>Special precautions for user</b>		
	Transport category: Classification Code: Hazard - No.: LQ:		Packing Instructions (Passenger)  Packing Instructions (Cargo)
14.7	<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>		

**SECTION 15: Regulatory information**

- 15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
n.av.
- 15.2 **Chemical safety assessment :**  
n.ap.

**SECTION 16: Other information**

**Text of H phrases mentioned in Section 3**

n.ap.

This datasheet has been compiled in accordance with EU regulation 2015/830.

The statements in this Material Safety Data Sheet were made to the best of our knowledge and are as accurate as possible. They are given for information only. They do not constitute a contractual guarantee of a product's properties. They must neither be altered nor transferred to other products.

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