

# INSULCOAT 1450 RFL HT

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

### Identification of the suppliers

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## 2. HAZARDS IDENTIFICATION

### **Dust or Fragments from the Product after Sintering**

Dust generation can occur if the paste is allowed to dry or when the product is processed after sintering. Any dust created could contain particles of a respirable size, which could contain silica. Hazards associated with the dust or fragments are:

#### **Inhalation**

This product contains crystalline silica (see Section 16). Prolonged exposure to dust may cause silicosis, or other respiratory diseases.

#### **Chronic Health Effects**

Prolonged inhalation of any respirable dust may cause respiratory irritation and possible side effects on lung function (silicosis).

#### **Eye Contact**

May cause discomfort to eye.

#### **Skin Contact**

May be abrasive to the skin in dust form. Fragments of material can be sharp and could lacerate the skin.

#### **After Swallowing**

Do not induce vomiting. Seek medical attention.

#### **Irritant Effects Associated with Anti-Fungal Agent**

H320 Causes eye irritation

H315 Causes skin irritation



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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Insulcoat 1450 RFL HT** is a pre-formed mixture of materials blended with water and sodium silicate to form a paste.

The product is used for coating applications, predominantly within the Refractory Industry such as furnace linings where the product is subjected to high temperature environments.

Under these conditions the product undergoes sintering to form a hardened material, which can be brittle and produce dust of broken or crushed.

Hazardous Ingredients	%	CAS No.	EINECS
Organic Material	Minor	9004-34-6	-
Sodium Silicate	Major	1344-09-8	215-687-4
Calcined Mullite	Major	1302-93-8	215-113-2
Sodium Silicate	Major	1344-09-8	215-687-4
Ball Clay Raw	Major	1332-58-7	310-127-6
Anti-fungal agent – Acicide BX (5-chloro-2-methyl-2H-Isothiazol -3)	Minor	26172-55-4 2682-20-4	247-500-7 220-239-6 235-938-1

## 4. FIRST AID MEASURES

### **Eyes:**

Flush with water for 15 minutes and seek medical advice. Do not rub eyes.

### **Skin:**

Wash thoroughly with soap and water. Do not rub or scratch exposed skin.

### **Nose and Throat:**

If these become irritated then move to a dust free area and drink water and blow nose.

## 5. FIRE-FIGHTING MEASURES

This product is non-flammable and will not support combustion.

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## 6. ACCIDENTAL RELEASE MEASURES

### **Personal Precautions:**

Avoid generating dust and use personal protective equipment as specified in Section 8.

### **Environmental Precautions:**

Do not flush spillage to drain and prevent from entering natural watercourses. See Section 13 for disposal considerations.

### **Methods of Cleaning Up:**

If using broom and shovel or similar equipment DO NOT SWEEP and use water spray to avoid the creation of airborne dust.

## 7. HANDLING AND STORAGE

Avoid dust generation when handling. Store in a dry location.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients	Exposure Limit Values (8hr Time Weighted Average)
Dust	Total inhalable dust 10 mg/m <sup>3</sup> Respirable dust 4 mg/m <sup>3</sup>
Silica, crystalline	Respirable crystalline silica 0.3 mg/m <sup>3</sup>
Silica, amorphous	Total inhalable dust 6 mg/m <sup>3</sup> Respirable dust 2.4 mg/m <sup>3</sup>
Mullite	Total inhalable dust 10 mg/m <sup>3</sup> Respirable dust 4 mg/m <sup>3</sup>

### **Respiratory Protection:**

For dust exposure below Exposure Limit Values then RPE is not required. However, voluntary usage of RPE should be considered for any short or long term operations such as: If material is cut, broken, machined, ground, or crushed so that dust is generated. For these operations or where dust exposure is shown to be above the exposure Limit Values then use either disposable: FFP2/FFP3 or reusable: P2/P3 filter.

### **Hand/Skin Protection:**

Protective gloves are recommended as shapes may have sharp edges when the product has been sintered.

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## **Eye Protection:**

Use of goggles is recommended.

## **Engineering Controls:**

Review your applications to identify potential sources of dust exposure. If necessary, conduct personal air monitoring. Use technical and/or organizational means to comply with regulations. Sufficient ventilation should be used to ensure exposures below exposure limit values.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Beige colored thick paste as supplied which has a grey / white appearance when sintered.
pH	: Not applicable
Boiling point/boiling range	: Not applicable
Melting point	: >1355°C
Flash point	: Not applicable
Flammability	: Non-flammable
Explosive properties	: Not applicable
Oxidising properties	: Not applicable
Vapour pressure	: Not applicable
Relative density	: Not applicable
Solubility	: Insoluble
Partition coefficient	: Not applicable
Viscosity	: Not applicable
Vapour density	: Not applicable
Evaporation rate	: Not applicable

## 10. STABILITY AND REACTIVITY

### **Conditions or Materials to Avoid:**

None.

### **Decomposition Products:**

None.

## 11. TOXICOLOGICAL INFORMATION

### **Chronic Toxicity:**

This product may contain a minimal amount of crystalline silica. In 1997, the International Agency for Research on Cancer (IARC) concluded that crystalline silica when associated with occupational exposure was a category 1 carcinogen.

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## **Acute Toxicity of Antifungal Agent:**

LD/LC50 classification values: Oral > 2000 mg/Kg rat.

## 12. ECOLOGICAL INFORMATION

The product is inert and should remain stable over time.

## **Data relating to Anti-fungal Agent**

### **Ecotoxicological Effects:**

Depending upon concentration, toxic effects on activated sludge organisms are possible; however concentration levels of anti-fungal agent in product are minor.

## 13. DISPOSAL CONSIDERATIONS

Dispose of in acceptance with waste management regulations. Please refer to the European List (Decision Number 2000/532/CE as modified) to identify your appropriate waste number and to ensure National/Regional regulations are being complied.

## 14. TRANSPORT INFORMATION

No special transportation precautions required.

## 15. REGULATORY INFORMATION

- Health and Safety at Work etc. Act 1974.
- Environmental Protection Act 1990.
- Environmental Protection (Duty of Care) Regulations 1991.
- Chemicals (Hazard Information and Packaging for Supply) Regulations 2002.
- Control of Substances Hazardous to Health Regulations 2002, as amended.
- Pollution Prevention and Control (England & Wales) Regulations 2000 as amended.

## 16. OTHER INFORMATION

### **Test Data:**

This product has been independently tested to determine levels of cristobalite and quartz present. Results showed levels of cristobalite from 0.5% to 1.7% with no quartz detected when the product was subjected to a temperature range of 1200°C to 1300°C.

Note – This data is for information purpose only and is based upon a specific scenario. Whilst this test data result indicates exposure prediction limits within current legislation, use of RPE specified in Section 8 is recommended for general usage.

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### References:

- \* EH40/2002: Occupational Exposure Limits (2002) amended 2003  
HSE Books ISBN 0 7176 2083 2
- \* HSE 267/3 Information Document (undated)  
Hazards from the Use of Refractory Ceramic Fibre  
HSE
- \* HS(G) 53 The selection, use and maintenance of respiratory protective equipment: A practical guide (1998)  
HSE Books ISBN 0 7176 1537 5
- \* L130 The Compilation of Safety Data Sheets 3<sup>rd</sup> edition (2002)  
Approved Code of Practice  
HSE Books ISBN 0 7176 2371 8
- \* Silica, some silicates, coal dust and para-aramid fibres (1997)  
IAR C Monograph Vol 68  
International Agency for Research on Cancer
- \* CHIP for everyone – 2002  
HSE practical guide pages 47 to 49 (Safety Data Sheets).

The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However safe, as provided by law, no warranty or representation, express or implied is made as to the accuracy or completeness of the foregoing data and safety information.

The data and advice given above apply when the product is used as intended. Use of the product for other applications may give rise to risks not specified. The information contained within this safety data sheet does not constitute the user's own assessment of risks as required by other health and safety legislation (i.e. COSHH 2002, MHSWR 1999).

If you have purchased the product for supply to a third party for use at work, it is your duty to take all necessary steps to secure that any person handling or using the product is provided with the information in this sheet.

If you are an employer, it is your duty to tell your employees and others who may be affected of any hazards described in this sheet and of any precautions which should be taken.