

*Please note that manufactured articles are generally outside of the requirements of the REACH and CLP regulations. IPS Ceramics believes that the provision of a safety data sheet is not a legal requirement for kiln furniture articles.*

## 1) IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY

**Products covered by this document:** Kiln Furniture articles

**Relevant Uses** Used as a support for items being heat treated or sintered.

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## 2) HAZARDS IDENTIFICATION

The main hazard associated with kiln furniture is personal injury due to impact or abrasion with the article. The material is of low acute toxicity; however long-term exposure to any respirable dust created by careless handling or machining of the articles can be hazardous to health if precautions outlined in section 8 are not observed.

## 3) COMPOSITION / INFORMATION ON INGREDIENTS

Kiln furniture articles are made from ceramic materials fired (cured) to over 1200°C. The main minerals present in the fired articles include cordierite and mullite, however some ranges may also include siliceous glass, corundum and zircon. Some articles may contain a small proportion of cristobalite (<1%).

Component	CAS number	Weight (%)	Danger symbol	Risk phrase	WEL (8hr TWA)
Cordierite	12330-40-4	60 -70	None	None	Inhalable 10 mg / m <sup>3</sup> Respirable 4 mg / m <sup>3</sup>
Mullite	1302-93-8	<20	None	None	
Corundum	1344-28-1	<20	None	None	
Silica (amorphous)	262-373-8	<20	None	None	Inhalable 6 mg / m <sup>3</sup> Respirable 2.4 mg/m <sup>3</sup>
Zircon	7440-67-7	<20	None	None	5 mg / m <sup>3</sup>

## 4) FIRST AID MEASURES

ROUTE	SYMPTOM	FIRST AID
Ingestion	Coughing	Give clean water to drink.
Inhalation	Coughing	Move away from source.
Contact with skin	Soreness in damaged skin	Wash with soap and water.
Contact with eyes	Soreness	Flush with clean water.

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Seek medical assistance if soreness persists.

#### 5) FIREFIGHTING MEASURES

The product is heat resistant, non-flammable and does not decompose on heating. Packaging material fires may be extinguished using a general purpose fire extinguisher. No special precautions required.

#### 6) ACCIDENTAL RELEASE MEASURES

Loose articles should be packed in boxes / crates or restacked on pallets. Broken items should be gathered up by any method that avoids the creation of airborne dust.

#### 7) HANDLING AND STORAGE

Unlimited shelf life. Store in a dry place.

Although not essential, gloves may be beneficial in preventing abrasion of the skin while handling the product for long periods.

#### 8) EXPOSURE CONTROLS / PERSONAL PROTECTION

If WELs are exceeded in the working area (see section 3), respirators should be worn.

#### 9) PHYSICAL AND CHEMICAL PROPERTIES

Appearance	-	Porous solid, white to light brown in colour
Melting point	-	Melting increases progressively as the temperature rises above 1400 °C
Bulk Density	-	1.0 – 2.2 g/cm <sup>3</sup>
Solubility	-	Insoluble in water or organic solvents
Flammability	-	Non-flammable

#### 10) SAFETY AND REACTIVITY

Chemically inert to most acids, alkalis or solvents. **Attacked by hydrofluoric acid.**

#### 11) TOXICOLOGY INFORMATION

Long term exposure to excessive concentrations of airborne dust created by careless handling or machining of kiln furniture articles may be harmful to the lungs.

#### 12) ECOLOGICAL INFORMATION

Inert with respect to the environment. Non-biodegradable.

#### 13) DISPOSAL CONSIDERATIONS

Dispose of as non-toxic material in accordance with local regulations for dry and inert waste.

#### 14) TRANSPORT INFORMATION

The products are not classified as hazardous for transport. No special precautions required.

#### 15) REGULATORY INFORMATION

CLP Classification, Labelling and Packaging of substances and mixtures (EC) No 1272/2008. Not classified - Hazard Warning Label not required.

Control of Substances Hazardous to Health (COSHH) regulations apply in the UK.

#### 16) OTHER INFORMATION

**Bibliography:** Workplace Exposure Limits EH40 (UK Health & Safety Executive).

The information provided in this document is correct to the best of our knowledge at the date of issue. It is intended as a guide to safe handling, storage and use of our products. It is not a specification or guarantee of specific properties and no liability can be accepted for loss, injury or damage resulting from its use.

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