PRODUCT DATA SHEET

# Royal Set - 30

Refractory castable or mortar | Intended for monolithic refractory lining, jointing or repair work

| | |
|---|---|
| **Pack / unit weight** | 50 Kg Bag |

## TECHNICAL SPECIFICATIONS

| Property | Published value |
|---|---|
| **PCEOrton** | 27 / 1640 |
| **Grain Size** | 0 - 1 mm |
| **Setting** | Ceramic |
| **Service Temp** | 1350°C |
| **Sintering Temp** | 1100°C |
| **Al2O3 Min** | 30% |
| **Fe2O3 Max** | 3.0% |
| **Size Tolerance** | 95% passing through max grain size |
| **Pack Size** | 1 Bag = 50 Kg |

# SAFETY DATA SHEET - INDUSTRIAL USE

## 1. IDENTIFICATION

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|---|---|
| **Product identifier** | Royal Set - 30 |
| **Product type** | Refractory castable or mortar |
| **Recommended use** | monolithic refractory lining, jointing or repair work |
| **Restrictions** | Industrial/professional refractory use only. |
| **Supplier** | Royal Refractories, Wankaner, Gujarat, India |
| **Emergency contact** | +91-8451999533 |

## 2. HAZARD IDENTIFICATION

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|---|---|
| **Classification** | Industrial dry mineral refractory mixture. Airborne dust can irritate eyes and the respiratory tract. |
| **Primary hazard** | Bag opening, mixing, installation and cleanup can generate respirable mineral dust; wet mix may irritate skin and eyes. |
| **Health effects** | Dust may irritate eyes, skin and airways. Repeated exposure to respirable crystalline silica, if present in generated dust, can cause serious chronic lung disease. |
| **Precautions** | Open bags carefully, use local exhaust, add material to water without raising dust, and avoid prolonged wet-skin contact. |
| **Other hazards** | Used refractory may retain process contaminants; assess before removal, reuse or disposal. |

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

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|---|---|
| **Material** | Proprietary refractory castable or mortar formulation. |
| **Composition** | Specific chemical identities and concentrations are withheld as confidential business information. |
| **Further information** | Contact Royal Refractories. Confidential details may be provided to qualified medical professionals or regulatory authorities where legally required and subject to confidentiality. |

## 4. FIRST-AID MEASURES

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| **Inhalation** | Move to fresh air. Obtain medical advice if coughing, breathing difficulty or irritation persists. |
| **Skin** | Wash with soap and water. Remove contaminated clothing. |
| **Eyes** | Rinse cautiously with clean water for at least 15 minutes. Seek medical advice if irritation persists. |
| **Ingestion** | Rinse mouth. Do not induce vomiting. Obtain medical advice if unwell. |

## 5. FIRE-FIGHTING MEASURES

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|---|---|
| **Flammability** | Inorganic refractory material; not expected to burn. |
| **Extinguishing media** | Use media suitable for the surrounding fire. |
| **Specific hazards** | No hazardous combustion products expected from the refractory itself. |

## 6. ACCIDENTAL RELEASE MEASURES

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| **Personal precautions** | Avoid airborne dust and direct contact. Ventilate the area. |
| **Cleanup** | Use HEPA-filtered vacuuming or wet cleanup. Do not dry sweep or use compressed air. |
| **Environment** | Prevent bulk material and fine dust from entering drains or waterways. |

## 7. HANDLING AND STORAGE

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|---|---|
| **Handling** | Open bags carefully, use local exhaust, add material to water without raising dust, and avoid prolonged wet-skin contact. |
| **Storage** | Store dry, covered and stable. Protect packaging from damage and moisture. |
| **Hygiene** | Wash after handling. Do not eat, drink or smoke in dusty work areas. |

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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| **Engineering controls** | Use wet methods or local exhaust. Wear a properly selected, fit-tested particulate respirator where dust is not adequately controlled. |
| **Eyes** | Safety goggles; use sealed goggles for dusty mixing or machining. |
| **Hands / skin** | Work gloves and protective clothing appropriate to the task. |
| **Exposure assessment** | Measure workplace respirable dust and identified crystalline silica; comply with applicable occupational limits. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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|---|---|
| **Appearance** | Dry graded refractory powder and aggregate mixture. |
| **Odour** | No characteristic odour expected. |
| **Pack / unit weight** | 50 Kg Bag |
| **Density** | Product-specific value shown in the technical data section where available. |
| **Water solubility** | Mineral fraction is expected to be insoluble; binder behavior depends on the product family. |
| **Other properties** | Liquid/gas properties such as vapour pressure and flash point are not applicable. |

## 10. STABILITY AND REACTIVITY

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|---|---|
| **Stability** | Stable under recommended dry storage and intended refractory use. |
| **Avoid** | Moisture before use where applicable, incompatible process contamination and uncontrolled dust generation. |
| **Decomposition** | No hazardous decomposition expected from the refractory mineral system under intended use. |

## 11. TOXICOLOGICAL INFORMATION

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|---|---|
| **Routes** | Inhalation of processing dust; eye and skin contact. |
| **Acute effects** | Mechanical irritation from dust; mixed silicate/cementitious products may irritate skin and eyes. |
| **Chronic effects** | Repeated inhalation of respirable crystalline silica, if present, may cause silicosis, lung cancer and other systemic effects. |
| **Product data** | No product-specific toxicological test data are available in the stored catalogue data. |

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## 12. ECOLOGICAL INFORMATION

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|---|---|
| **Ecotoxicity** | No product-specific data available; avoid uncontrolled environmental release. |
| **Persistence** | Inorganic mineral material is not readily biodegradable. |
| **Bioaccumulation** | Not expected for an insoluble mineral refractory. |

## 13. DISPOSAL CONSIDERATIONS

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| **Waste** | Reuse or recycle clean refractory where feasible. Dispose under local rules and contamination status. |
| **Used material** | Characterize used refractory for absorbed process contaminants before disposal. |
| **Packaging** | Recycle clean packaging where permitted. |

## 14. TRANSPORT INFORMATION

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| **UN number / class** | Not assigned based on the product data and supplied form. |
| **Packing group** | Not assigned. |
| **Precautions** | Secure against package damage, breakage and dust generation. |

## 15. REGULATORY INFORMATION

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| **Framework** | Prepared in the 16-section UNECE GHS Revision 11 format. |
| **Review** | Manufacturer approval and jurisdiction-specific review are required before regulatory issue. |

## 16. OTHER INFORMATION

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| **Issue / revision** | 07 August 2026 / Revision 01 |
| **Technical source** | Royal Refractories website catalogue data for this product. |
| **Safety basis** | Product-family physical form, intended use, and conservative mineral-dust controls. |
| **References** | UNECE GHS Rev. 11 (2025); OSHA respirable crystalline silica guidance. |
| **Status** | Industrial safety information must be read with site-specific risk assessment and applicable local requirements. |

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