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| --- | --- | --- | --- |
| **Sno** | **Description** | **UOM** | **Specification** |
|  | Physical State / Color | - | Solid Powder / Greyish white |
|  | Assay Content | % | 97 |
|  | Grade | - | XXX |
|  | Mol. Wt. | g/mole | 91.22 |
|  | **Element** | **%** | **Percentage** |
|  | active Zirconium (Zr) | **%** | 97.00 |
|  | Hafnium (Hf) | **%** | 2.00 |
|  | Titanium (Ti) | **%** | 0.6 |
|  | Iron (Fe) | **%** | 0.4 |
|  | Melting point | °C | 1855 |
|  | Particle size distribution | µm | 4-40 microns |
|  | Burning Speed (Zr : BaCrO4 = 45 : 55) | cm/sec | 50 |
|  | Calorific Value (BaCrO4 : Zr = 76 : 24) | cal/gm | 430 |
|  | Supplier | - | China Make (MBC Solar) |
|  | MSDS no. | - | XXXX |
|  | CAS no. | - | 7440-67-7 |
|  | **Acceptance Criteria** | | |
|  | Assay Content | % | 96±1 |
|  | Visual Acceptance | - | Greyish white |
|  | Burning Speed | cm/sec | >45 |
|  | Calorific Value (BaCrO4 : Zr = 76:24) | cal/gm | 430±2 |
|  | **Properties to be tested** | **Test Method** | **Test Agency** |
|  | Quantitative & qualitative analysis | ICPMS/Titration | NABL, IIT-HYD, CMET |
|  | Particle size distribution | PSD | NABL, SRR labs |
|  | Burning speed & Calorific value | Bomb Calorimeter | RES, NABL |
|  | Specific heat & Thermal Conductivity | DSC/TGA | NABL, IIT-HYD, CMET |