UHP 9999
High Purity Grade Beryllium

Effective March 23, 2012

1. SCOPE
This specification defines the requirements for a standard grade of beryllium designated UHP 9999.

2. CHEMICAL COMPOSITION

2.1. The chemical composition shall conform to the following:

<table>
<thead>
<tr>
<th>Beryllium Assay, % minimum (1)</th>
<th>99.99</th>
</tr>
</thead>
<tbody>
<tr>
<td>The sum of the following % elements</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Fe, Si, Cr, Co, Cu, Mn, Mo, Ni, Ca, Ag, Ti, Pb, and Zr.(2)</td>
<td></td>
</tr>
</tbody>
</table>

Note: (1) Difference (i.e. 100% - other elements)
(2) Spectrochemical Methods

Chemical analysis will be performed on a representative sample from the lot. A lot shall be defined as a bar.

3. Documentation

3.1. Each delivery shall include a chemical composition analysis and a certificate of conformance for each lot in the delivery.
4. MARKING

4.1. Each lot material shipped to the customer will be appropriately identified, tagged, packaged and labeled to include the following:

- Materion Brush Inc.
- Lot Number
- Specification Number
- Purchase Order Number
- Warning Beryllium

5. SAFETY / ENVIRONMENTAL

5.1. Handling Beryllium Containing Material in solid form poses no special health risk. Like many industrial materials, beryllium-containing materials may pose a health risk if recommended safe handling practices are not followed. Inhalation of airborne beryllium may cause a serious lung disorder in susceptible individuals. The Occupational Safety and Health Administration (OSHA) has set mandatory limits on occupational respiratory exposures. Read and follow the guidance in the Material Safety Data Sheet (MSDS) before working with this material. For additional information on safe handling practices or technical data on Beryllium Containing Material, contact Materion Brush Beryllium & Composites, EH&S Product Steward @ 216-383-4040