# Certificate of Analysis

**Product Name:** Dysprosium(III) chloride – arhydrous, powder, 99.99% trace metals basis

<table>
<thead>
<tr>
<th>Product Number</th>
<th>325546</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batch Number</td>
<td>MKBX7709V</td>
</tr>
<tr>
<td>Brand</td>
<td>ALDRICH</td>
</tr>
<tr>
<td>CAS Number</td>
<td>10025-74-8</td>
</tr>
<tr>
<td>Formula</td>
<td>Cl3Dy</td>
</tr>
<tr>
<td>Formula Weight</td>
<td>268.86 g/mol</td>
</tr>
<tr>
<td>Quality Release Date</td>
<td>24 JUN 2016</td>
</tr>
</tbody>
</table>

**Test** | **Specification** | **Result**
--- | --- | ---
Appearance (Color) | White to Light Grey | White
Appearance (Form) | Powder | Powder
Complexometric EDTA | 59.5 - 61.3 % | 60.5 %
% Dy | Confirms Dysprosium Component | Conforms
ICP Major Analysis | Confirmed |
Purity | Meets Requirements | Meets Requirements
99.99% Based On Rare Earth Analysis | < 150.0 ppm | 11.3 ppm
Trace Rare Earth Analysis | Silver (Ag) | 0.1 ppm
| Aluminum (Al) | 0.6 ppm |
| Arsenic (As) | 0.3 ppm |
| Boron (B) | 0.5 ppm |
| Barium (Ba) | 2.0 ppm |
| Cobalt (Co) | 0.6 ppm |
| Chromium (Cr) | 0.3 ppm |
| Copper (Cu) | 1.2 ppm |
| Iron (Fe) | 2.1 ppm |
| Potassium (K) | 0.6 ppm |
| Magnesium (Mg) | 0.4 ppm |
| Sodium (Na) | 8.4 ppm |
| Nickel (Ni) | 0.2 ppm |
| Lead (Pb) | 2.6 ppm |
| Platinum (Pt) | 0.2 ppm |
| Vanadium (V) | 0.1 ppm |

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.
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**Batch Number:** MKBX7709V

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<thead>
<tr>
<th>Test</th>
<th>Specification</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tungsten (W)</td>
<td></td>
<td>0.1 ppm</td>
</tr>
<tr>
<td>Cerium (Ce)</td>
<td></td>
<td>0.3 ppm</td>
</tr>
<tr>
<td>Erbium (Er)</td>
<td></td>
<td>1.6 ppm</td>
</tr>
<tr>
<td>Gadolinium (Gd)</td>
<td></td>
<td>0.2 ppm</td>
</tr>
<tr>
<td>Holmium (Ho)</td>
<td></td>
<td>0.9 ppm</td>
</tr>
<tr>
<td>Lanthanum (La)</td>
<td></td>
<td>0.1 ppm</td>
</tr>
<tr>
<td>Lutetium (Lu)</td>
<td></td>
<td>0.2 ppm</td>
</tr>
<tr>
<td>Praseodymium (Pr)</td>
<td></td>
<td>0.1 ppm</td>
</tr>
<tr>
<td>Samarium (Sm)</td>
<td></td>
<td>0.1 ppm</td>
</tr>
<tr>
<td>Terbium (Tb)</td>
<td></td>
<td>0.3 ppm</td>
</tr>
<tr>
<td>Thulium (Tm)</td>
<td></td>
<td>6.3 ppm</td>
</tr>
<tr>
<td>Yttrium (Y)</td>
<td></td>
<td>0.2 ppm</td>
</tr>
<tr>
<td>Ytterbium (Yb)</td>
<td></td>
<td>1.0 ppm</td>
</tr>
</tbody>
</table>

Michael Grady, Manager  
Quality Control  
Milwaukee, WI  US

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