

3050 Spruce Street, Saint Louis, MO 63103, USA

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## Certificate of Analysis

Product Name:

Hydrogen hexachloroiridate(IV) hydrate - 99.98% trace metals basis

**Product Number:** 455962  
**Batch Number:** MKBS0784V  
 Brand: ALDRICH  
 CAS Number: 110802-84-1  
 MDL Number: MFCD00149906  
 Formula: H<sub>2</sub>Cl<sub>6</sub>Ir · xH<sub>2</sub>O  
 Formula Weight: 406.95 g/mol  
 Quality Release Date: 13 JUN 2014



| Test  | Specification            | Result             |
|---|--------------------------|--------------------|
| Appearance (Color)                                    | Black                    | Black              |
| Appearance (Form)                                     | Conforms to Requirements | Powder             |
| Powder, Crystals, Crystalline Powder<br>and/or Chunks |                          |                    |
| Gravimetric Analysis                                  | 35.0 - 45.0 %            | 39.8 %             |
| % Ir, After Reduction With Magnesium                  |                          |                    |
| ICP Major Analysis                                    | Confirmed                | Conforms           |
| Confirms Iridium Component                            |                          |                    |
| Purity  | Meets Requirements       | Meets Requirements |
| 99.98% Based On Trace Metals Analysis                 |                          |                    |
| Trace Metal Analysis                                  | ≤ 300.0 ppm              | 110.0 ppm          |
| Arsenic (As)  |                          | 19.6 ppm           |
| Boron (B)   |                          | 0.6 ppm            |
| Barium (Ba)   |                          | 0.3 ppm            |
| Beryllium (Be)  |                          | 0.2 ppm            |
| Bismuth (Bi)  |                          | 16.9 ppm           |
| Calcium (Ca)  |                          | 13.8 ppm           |
| Cadmium (Cd)  |                          | 6.4 ppm            |
| Cobalt (Co)   |                          | 1.6 ppm            |
| Chromium (Cr)   |                          | 0.6 ppm            |
| Magnesium (Mg)  |                          | 1.5 ppm            |
| Manganese (Mn)  |                          | 1.9 ppm            |
| Sodium (Na)   |                          | 4.9 ppm            |
| Nickel (Ni)   |                          | 2.9 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.

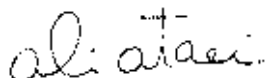
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| Test           | Specification | Result   |
|----------------|---------------|----------|
| Palladium (Pd) |               | 14.1 ppm |
| Tin (Sn)       |               | 10.9 ppm |
| Tungsten (W)   |               | 13.1 ppm |
| Zinc (Zn)      |               | 0.8 ppm  |



Ali Ataei, Manager  
Quality Control  
Milwaukee, WI US

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