MATERIAL SAFETY DATA SHEET

Section 1- PRODUCT IDENTIFICATION

<table>
<thead>
<tr>
<th>COMPOSITION</th>
<th>PRODUCT NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ir</td>
<td>Iridium</td>
</tr>
</tbody>
</table>

Section 2- HAZARDOUS INGREDIENTS

Note: Products under normal conditions do not represent an inhalation, ingestion or contact health hazard.

<table>
<thead>
<tr>
<th>MATERIAL OR COMPONENT</th>
<th>CAS NUMBER</th>
<th>WT%</th>
<th>EXPOSURE LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>100</td>
<td>OSHA PEL (Mg/M3) ACGIH TLV (MG/M3)</td>
</tr>
<tr>
<td>Iridium</td>
<td>7439-88-5</td>
<td></td>
<td>NE</td>
</tr>
</tbody>
</table>

Section 3- PHYSICAL DATA

<table>
<thead>
<tr>
<th>MATERIAL IS (AT NORMAL CONDITIONS)</th>
<th>APPERANCE AND ODOR</th>
<th>SPECIFIC GRAVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid</td>
<td>Silver white-metallic powder. No odor.</td>
<td></td>
</tr>
<tr>
<td>Melting Point (Base Metal)</td>
<td>2410° C to 2450° C</td>
<td>22.4gm/cc</td>
</tr>
</tbody>
</table>

Section 4- FIRE AND EXPLOSION

Flash Point (Method Used) | Flammable Limits | LEL | UEL |
--------------------------|-----------------|-----|-----|
N/A                      | N/A             | N.A.| N.A.|

- **EXTINGUISHING MEDIA**
  - Class D or other extinguishing agent. Do not use water.

- **SPECIAL FIRED FIGHTING PROCEDURES**
  - Wear full face, self-contained breathing apparatus with full protective clothing.

- **UNUSUAL FIRE AND EXPLOSION HAZARDS**
  - May ignite spontaneously in air. Violent reaction or ignition on contact with interhalogens. Iridium is attacked by F2 and Cl2 at red heat; by potassium sulfate or a mixture of potassium hydroxide and nitrate, on fusion, lead, zinc and tin. Does not tarnish in air, on heating strongly, a slightly volatile oxide is formed.

Section 5- REACTIVITY DATA

<table>
<thead>
<tr>
<th>STABILITY</th>
<th>INCOMPATABILITY (MATERIALS TO AVOID)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable</td>
<td>Interhalogens, fluorine, chlorine, potassium sulfate, potassium hydroxide and potassium nitrate.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CONDITIONS TO AVOID</th>
<th>HAZARDOUS DECOMPOSITION PRODUCTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
**Section 6- HEALTH HAZARD GUIDE**

MAJOR EXPOSURE HAZARD

- Inhalation  □  Skin  □  Skin Absorption  □  Eye Contact  □  Ingestion

EFFECTS OF OVEREXPOSURE

**INHALATION:** Acute; May cause irritation (dry throat) Chronic; N/A  
**INGESTION:** Acute; N/A Chronic; N/A  
**SKIN CONTACT:** Acute; May cause abrasive irritation. (redness & itching) Chronic; N/A  
**EYE CONTACT:** Acute; May cause abrasive irritation. (itching & watering) Chronic; N/A  

**EMERGENCY & FIRST AID PROCEDURES**

**INHALATION:** Remove from exposed area to fresh air immediately; keep warm and quiet, give oxygen if breathing is difficult.  
**INGESTION:** N/A  
**SKIN CONTACT:** Remove contaminated clothing; brush material off skin. Wash affected area with soap or mild detergent.  
**EYE CONTACT:** Flush eyes with lukewarm water lifting up the upper and lower lids for at least fifteen minutes.

**Section 7- SPILL OR LEAK PROCEDURES**

**Wear appropriate respiratory and protective equipment. Isolate the area where the spill occurred and provide ventilation. Vacuum up the spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for proper disposal. Take care not to raise dust.**

**Observe disposal methods**

Observe all federal, state and local regulations when storing or disposing.

**Section 8- SPECIAL PROTECTION**

**RESPIRATORY**

NIOSH approved dust respirator

**VENTILATION**

Local exhaust: To maintain concentration at low levels. Mechanical ventilation recommended.

**EYE PROTECTION & PROTECTIVE CLOTHING**

Safety glasses, rubber gloves and full protective gear suitable to prevent contamination.

**Section 9- SPECIAL PRECAUTIONS**

**WORK/HYGIENIC/Maintenance PRACTICES**

Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air. Store in a cool dry place.

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