Section 1: Company and Product Identification

Product Name: Palladium(II) iodide

Product Code: 5003

CAS #: 7790-38-7

Company: Colonial Metals, Inc.
Building 20
505 Blue Ball Road
Elkton, MD 21921 United States

Company Contact: EHS Director
Telephone Number: 410-398-7200
FAX Number: 410-398-2918
E-Mail: info@colonialmetals.com
Web Site: www.colonialmetals.com

Emergency Response: Supplier Emergency Contacts & Phone Number
Chemtrec: 800-424-9300
World Wide - Call COLLECT to U.S: 703-527-3887

Section 2: Hazards Identification

Hazard Pictograms:

Signal Word: Warning

Hazard Category:
Skin corrosion/irritation Cat 3
Serious eye damage/eye irritation Cat 3
Acute tox, oral Cat 5
Specific target organ tox, single exp. Cat 3 (resp irrit)

Hazard Statements:
H316: Causes mild skin irritation
H320: Causes eye irritation
H335: May cause respiratory irritation

Precautionary Statements:
P202: Do not handle until all safety precautions have been read and understood
P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
P264: Wash thoroughly after handling
P280: Wear protective gloves/protective clothing/eye protection/face protection
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove
P402+404: Store in a dry place. Store in a closed container
P501: Dispose of contents/container in accordance with local/national/international rules.

Hazards not otherwise classified:
To the best of our knowledge the chemical, physical, and toxicological properties have not
been thoroughly investigated. Avoid elevated temperatures and high humidity. Product
incompatible with reducing agents. May decompose hydrogen bromide vapors
Section 3: Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Hazardous substance (name)</th>
<th>Hazard Category</th>
<th>CAS#</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palladium(II) iodide</td>
<td>Irritant</td>
<td>7790-38-7</td>
<td>99</td>
</tr>
</tbody>
</table>

Product Name: Palladium(II) iodide  
Chemical Name: Palladium diiodide  
Chemical Family: Platinum Group Metal  
Chemical Formula: PdI₂

Section 4: First Aid Measures

General Info: Ensure proper ventilation.

Notable Exposure  
symptoms:  
If ingested: Rinse mouth. Seek immediate medical attention. Clear the airway and administer artificial respiration if not breathing.  
If swallowed, do not induce vomiting unless directed to do so by medical personnel.

If inhaled: Remove the victim from the contaminated area while protecting yourself from exposure by wearing an appropriate respirator. Put a similar respirator on the victim if possible. Get medical attention immediately.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Get medical attention if irritation develops or persists.

Skin contact: Take off immediately all contaminated clothing. Rinse with water thoroughly. Get medical advice if irritation develops or persists.

Additional Info: Observe for any symptoms for several hours after exposure. Follow up with medical attention if symptoms develop.

Section 5: Fire Fighting Measures

General Info:  
Flash Point Method: NA  
Flammability Class: NA  
Fire And Explosion Hazards: Use proper safety equipment. Can decompose to emit toxic hydrogen bromide gas  
Extinguishing: In case of fire, use water fog, dry chemical, CO₂, or alcohol-resistant foam.

Method / Equipment:  
Hazardous: Constituents associated with burning / combustion are to be considered toxic. Firefighters should wear self-contained breathing apparatus and full protective gear.

Decomposition Info:  

Section 6: Accidental Release Measures

Personal precautions:  
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing dust. Ventilate area if easy to do so. Contact local authorities if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Containment: Spills: Contain actively spilling material if safe and easy to do so. Soak up material and dispose of properly.

Equipment and Procedures:  
Cleanup Procedures: Collect all contaminated media, or other cleanup materials into a waste receptacle. If cleaning surface is necessary, utilize vacuum cleaner, provided adequate ventilation is available.

Section 7: Handling and Storage

Safe Handling: Do not handle until all safety precautions have been read and understood. Keep containers tightly closed. Ensure adequate ventilation. Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment and wash thoroughly after handling.

Precautions:  

Recommendations for  
Storage: Store in dry area in a tightly closed product container away from sources of ignition or flame.

Incompatibilities: Mixing with reducing agents
Section 8: Exposure Control / Personal Protection

- **General**: Use with adequate local and general exhaust ventilation.
- **Engineering Controls**: Protective work clothing which covers skin and prevents exposures.
- **Work Clothing**: Wear safety glasses with side shields or goggles or face shield.
- **Eye/face protection**: Wear chemical resistant gloves.
- **Skin Protection**: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

- **Respiratory Protection**: Observe good chemical hygiene practices. Do not smoke or eat while using this product. Wash hands or exposed skin after using the product.

Section 9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>Solid powder</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Color</td>
<td>dark grey</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>N/A</td>
</tr>
<tr>
<td>Odor</td>
<td>N/A</td>
</tr>
<tr>
<td>Molecular Wt.</td>
<td>360.23 g/mol</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Part. Coeff (n-octanol/water)</td>
<td>N/A</td>
</tr>
<tr>
<td>Upper Flam Limits</td>
<td>N/A</td>
</tr>
<tr>
<td>Lower Flam Limits</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC Content (lbs/gal)</td>
<td>N/A</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
</tr>
<tr>
<td>Autoignition Temp</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 10: Stability and Reactivity

- **General**: This product is stable and non-reactive under recommended conditions of use. Product is not subject to hazardous polymerization. Avoid open flame and ignition sources. **Conditions To Avoid**
  - Elevated temperature and high humidity
  - Mixing with oxidizing agents
  - Palladium undergoes a violent reaction with arsenic, methanol, ethanol and mineral acids

- **Decomposition products**: Iodide vapors

Section 11: Toxicological Information

- **General Information**: To the best of our knowledge the chemical, physical, and toxicological properties of this compound have not been thoroughly investigated.
  - Toxicological Information (product):
    - **Carcinogenicity or mutagenicity**: have not been thoroughly investigated.
    - **Sensitization**: Product is not expected to be a sensitizer.

Section 12: Ecological Information

- **General information**: Product not tested.
  - Aquatic toxicity: No specific data available. Do not allow large quantities of product to reach water, ground water, water courses or sewer systems.
  - Degradation / Mobility info: No specific data available.
  - Bioaccumulative potential: No specific data available.
Section 13: Disposal Information

**Product disposal:** Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

**Container disposal:** Treat empty containers with extra care. Consult waste contractor.

**Other considerations:** NOTE: Chemical additions, processing, or otherwise altering this material may make the waste management information presented above incomplete, inaccurate, or otherwise inappropriate.

Section 14: Transport Information

**DOT:** Non-Hazardous

**IMO/IMDG:** Non-Hazardous

**IATA:** See regulation for information

**OTHER:** Inquire for further transport information.

**Comments:** Non-Hazardous for shipping

Section 15: Regulatory Information

**TSCA:** TSCA 8(b) inventory: Palladium

**SARA 313** This product does not contain any ingredients regulated under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 or 40 CFR 372.

**Canadian DSL:** All ingredients of this product comply with the New Substances Notification requirements of the Canadian Environmental Protection Act (CEPA).

**European Union (EU)**

<table>
<thead>
<tr>
<th>Regulatory Information</th>
<th>Symbol of Danger: I</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Safety Statements:</strong></td>
<td>In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</td>
</tr>
</tbody>
</table>

Section 16: Other Information

<table>
<thead>
<tr>
<th>NFPA Rating</th>
<th>HMIS Rating</th>
<th>Precautionary Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health: 0</td>
<td>Health: 0</td>
<td>Irritant</td>
</tr>
<tr>
<td>Fire: 0</td>
<td>Fire: 0</td>
<td></td>
</tr>
<tr>
<td>Reactivity: 0</td>
<td>Reactivity: 0</td>
<td></td>
</tr>
<tr>
<td>Personal Protection: B</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Disclaimer:** In compliance with the OSHA Hazard communication Standard, 29 C.F.R 1910.1200, we are providing you with a Materials Safety Data Sheet (MSDS) for the hazardous material you are purchasing.

*It is your responsibility to educate your employees on the safe use of the hazardous material. With this in mind, a copy should be forwarded to the supervisor of the user or to the user themselves, and copy should be retained in your files for future reference.*

*Colonial Metals, Inc. makes no presentation as to the accuracy of the information in the MSDS. The information is believe to be correct; however, you (the customer), should preform your own investigation and independent verification. If you resell the product, you are responsible to forward the information in the MSDS to your customer.*

*Colonial Metals, Inc.*

<table>
<thead>
<tr>
<th>SDS Author:</th>
<th>Version Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Ernest Addo</td>
<td>2/23/2017</td>
</tr>
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</table>