Section 1: Product Identification

- Chemical Name: Palladium, 5% on alumina powder, reduced, dry (Escat™ 1241)
- Product Number: 46-1951
- CAS Registry Number: 7440-05-3
- Formula: Pd on alumina
- EINECS Number: 231-115-6
- Chemical Family: supported metal catalyst
- Synonym: Palladium on alumina catalyst

Section 2: Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Percent</th>
<th>ACGIH (TWA)</th>
<th>OSHA (PEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title compound</td>
<td>7440-05-3</td>
<td>5%</td>
<td>no data</td>
<td>no data</td>
</tr>
<tr>
<td>Alumina (gamma)</td>
<td>1344-28-1</td>
<td>95%</td>
<td>10mg/m³ (as Al₂O₃)</td>
<td>15mg/m³ (as total Al dust)</td>
</tr>
</tbody>
</table>

Section 3: Hazards Identification

- Emergency Overview: Inhalation hazard as a fine dust or fume.
- Primary Routes of Exposure: Inhalation, ingestion
- Eye Contact: The dust may cause slight to mild irritation of the eyes.
- Skin Contact: The dust may cause slight to mild irritation of the eyes.
- Inhalation: Hazard associated with inhalation of fine dust or fume. May be irritating to the nose and respiratory tract.
- Ingestion: No specific information is available on the physiological effects of ingestion.
- Acute Health Affects: Dust may be irritating to skin, eyes and respiratory tract.
- Chronic Health Affects: No information available on health effects of prolonged or repeated exposure.
- NTP: No
- IARC: No
- OSHA: No

SECTION 4: First Aid Measures

- Eye Exposure: Immediately flush the eyes with copious amounts of water for at least 10-15 minutes. A victim may need assistance in keeping their eye lids open. Get immediate medical attention.
- Skin Exposure: Wash the affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.
- Inhalation: Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.
- Ingestion: Seek medical attention immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.
## SECTION 5: Fire Fighting Measures

- **Flash Point:** no data
- **Autoignition Temperature:** none
- **Explosion Limits:** none
- **Extinguishing Medium:** none. Material is non-flammable
- **Special Fire Fighting Procedures:** No special fire fighting procedures required for this material.
- **Hazardous Combustion and Decomposition Products:** none
- **Unusual Fire or Explosion Hazards:** No unusual fire or explosion hazards.

## SECTION 6: Accidental Release Measures

- **Spill and Leak Procedures:** Small spills can be mixed with vermiculite or sodium carbonate and swept up.

## SECTION 7: Handling and Storage

- **Handling and Storage:** Store in a tightly sealed container. Handle fine powders in a well-ventilated area.

## SECTION 8: Exposure Controls and Personal Protection

- **Eye Protection:** Always wear approved safety glasses when handling a chemical substance in the laboratory.
- **Skin Protection:** Wear protective clothing and gloves.
- **Ventilation:** Handle the material in an efficient fume hood.
- **Respirator:** If ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 1910.134.
- **Ventilation:** Handle the material in an efficient fume hood.
- **Additional Protection:** No additional protection required.

## SECTION 9: Physical and Chemical Properties

- **Color and Form:** gray powder (d50=70 microns)
- **Molecular Weight:** not applicable
- **Melting Point:** no data
- **Boiling Point:** no data
- **Vapor Pressure:** no data
- **Specific Gravity:** no data
- **Odor:** none
- **Solubility in Water:** insoluble

## SECTION 10: Stability and Reactivity

- **Stability:** air and moisture stable
- **Hazardous Polymerization:** no hazardous polymerization
- **Conditions to Avoid:** If used as a catalyst, keep spent catalyst away from combustibles.
- **Incompatibility:** none
- **Decomposition Products:** none
SECTION 11: Toxicological Information

RTECS Data: Oral (rat); TDLo: 9100mg/kg/26W-I. Alumina: Intrapleural (rat); TDLo: 90mg/kg. Implant (rat); 200mg/kg.

Carcinogenic Effects: Alumina: no definitive data

Mutagenic Effects: no data

Tetratogenic Effects: no data

SECTION 12: Ecological Information

Ecological Information: No information available

SECTION 13: Disposal Considerations

Disposal: Dispose of according to local, state and federal regulations.

SECTION 14: Transportation

Shipping Name (CFR): Non-hazardous
Hazard Class (CFR): NA
Additional Hazard Class (CFR): NA
Packaging Group (CFR): NA
UN ID Number (CFR): NA
Shipping Name (IATA): Non-hazardous
Hazard Class (IATA): NA
Additional Hazard Class (IATA): NA
Packaging Group (IATA): NA
UN ID Number (IATA): NA

SECTION 15: Regulatory Information

TSCA: Listed in the TSCA inventory
SARA (Title 313): Title compound not listed.
Second Ingredient: none
Third Ingredient: none

SECTION 16: Other Information

The information herein is believed to be accurate and reliable as of the date compiled. However, Strem Chemicals, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information contained in this document or any use of the product based on this information.

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