1. **Identification of the substance / mixture and of the company / undertaking**

1.1 **Product identifier**

Product name: Palladium foil  
CAS-No.: 7440-05-3  
EC-No.: 231-115-6

1.2 **Relevant identified uses of the substance or mixture and uses advised against**

Identified use: Laboratory chemical

1.3 **Details of the supplier of the safety data sheet**

Company: NETZSCH-Gerätebau GmbH  
Wittelsbacherstraße 42  
95100 Selb / Germany

Customer service Phone: +49 9287 881-555

1.4 **Emergency Phone:** +49 9287 881-174 (during office hours)

Fax: +49 9287 881-505

E-mail: service@ngb.netzsch.com

2. **Hazards identification**

2.1 **Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008  
none

2.2 **Label elements**

Labelling according to Regulation (EC) No 1272/2008  
none

Hazard pictograms: none

Signal word: none

Hazard statements: none

Precautionary statements: none

Additional information: -

2.3 **Other hazards**

No information available.

**Results of PBT- und vPvB assessment**

PBT: No data available.

vPvB: No data available.
3. Composition / information on ingredients

3.1 Chemical characterization:

Substances
CAS-No. Description: 7440-05-3 Palladium
Identification number(s):
EC number: 231-115-6
Formula: Pd
Molar mass [g/mol]: 106.42

4. First aid measures

4.1 Description of first aid measures

General information: -
After inhalation: Remove from exposure, lie down. Move to fresh air. Obtain medical attention.
After skin contact: Wash off with soap and water while removing all contaminated clothes and shoes. In the case of skin irritation or allergic reactions see a physician.
After eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
After swallowing: Clean mouth with water. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed
No information available.

4.3 Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

5. Fire-Fighting measures

5.1 Extinguishing agents
Suitable extinguishing agents: Water spray. Carbon dioxide (CO2). Dry chemical.
For safety reasons unsuitable extinguishing agents: No information available.

5.2 Special hazards arising from the substance or mixture
Explosive properties.
In case of fire, the following can be released:
Sulfur oxides.

5.3 Advice for firefighters
Protective equipment: Self-contained breathing apparatus and full protective gear.
Additional information: -
6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation.

6.2 Environmental precautions
See section 12 for additional ecological information.

6.3 Methods and material for containment and cleaning up
Sweep up or vacuum up spillage and collect in suitable container for disposal.

6.4 Reference to other sections
Refer to protective measures listed in Sections 8 and 13.

7. Handling and storage

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Do not breathe dust.

Information about fire and explosion protection:
none

7.2 Conditions for safe storage, including any incompatibilities
Requirements to be safe storage,
including any incompatibilities: Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

Information about storage in one common storage facility: none

Further information about storage conditions: none

Recommended storage temperature: none

7.3 Specific end use(s)
Use in laboratories.

8. Exposure controls / personal protection

Additional information about design of technical facilities: None under normal use conditions.

8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace: Exposure limits

<table>
<thead>
<tr>
<th>Component</th>
<th>Finland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palladium</td>
<td>TWA: 0.5 mg/m3 8 tunteina</td>
</tr>
</tbody>
</table>

Additional information: none
8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures: Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

Individual protection measures: No information available.

Respiratory protection: No information available.

Protection of hands: Protective gloves

Eye protection: Safety glasses with side-shields (European standard- EN 166)

Body protection: Protective gloves and clothing
9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Powder Solid</td>
</tr>
<tr>
<td>Form</td>
<td>Solid</td>
</tr>
<tr>
<td>Colour</td>
<td>Brown</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available.</td>
</tr>
<tr>
<td>pH-value</td>
<td>No information available.</td>
</tr>
<tr>
<td>Change in condition</td>
<td></td>
</tr>
<tr>
<td>Melting point / Melting range</td>
<td>No data available.</td>
</tr>
<tr>
<td>Boiling point / Boiling range</td>
<td>No information available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available.</td>
</tr>
<tr>
<td>Flammability (solid, gaseous)</td>
<td>No information available.</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>&gt; 999 °C</td>
</tr>
<tr>
<td>Self-igniting</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Danger of explosion</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosion limits</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>No data available.</td>
</tr>
<tr>
<td>Upper</td>
<td>No data available.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available.</td>
</tr>
<tr>
<td>Density at 20°C</td>
<td>No data available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol / water)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Viskosity</td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

9.2 Other information

None
10. Stability and reactivity

10.1 Reactivity
None known, based on information available.

10.2 Chemical stability
Thermal decomposition / conditions to be avoided:
Stable under normal conditions.

10.3 Possibility of hazardous reactions
No information available.

10.4 Conditions to avoid
Incompatible products.

10.5 Incompatible materials
Alcohols.

10.6 Hazardous decomposition products
Sulfur oxides.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity
LD / LC50 values relevant for classification: No data available.

Potential health effects
Skin: No data available.
Eyes: No data available.
Inhalation: No data available.
Ingestion: No data available.
Sensitization: No data available.

CMR effects
Germ cell mutagenicity: No data available.
Carcinogenicity: No data available.
Reproductive toxicity: No data available.

Aspiration hazard:
Not applicable.

Specific target organ toxicity – single exposure:
No data available.

Specific target organ toxicity – repeated exposure:
No data available.

Additional toxicological information:
No data available.

Further information:
The toxicological properties have not been fully investigated.
12. Ecological information

12.1 Toxicity

Ecotoxicity effects

12.2 Persistence and degradability
Persistency: Insoluble in water.
Degradability: Not relevant for inorganic substances.

12.3 Bioaccumulative potential
May have some potential to bioaccumulate.

12.4 Mobility in soil
Is not likely mobile in the environment due its low water solubility.

Ecotoxic effects
Remark: No data available.

12.5 Results of PBT and vPvB assessment
PBT: No data available.
vPvB: No data available.

12.6 Other adverse effects
This product does not contain any known or suspected endocrine disrupters.

13. Disposal considerations

13.1 Waste treatment methods
Recommendation: No hazardous waste. Consult local, regional and national waste regulations to ensure complete and accurate classification.

Uncleaned packaging
Recommendation: Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use empty containers.
14. Transport information

<table>
<thead>
<tr>
<th>14.1 UN-Number</th>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>14.2 UN proper shipping name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not regulated.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.3 Transport hazard class(es) / -label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport hazard class(es):</td>
</tr>
<tr>
<td>Label:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.4 Packing group:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport hazard class(es):</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.5 Environmental hazards:</th>
</tr>
</thead>
<tbody>
<tr>
<td>No hazards identified.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>14.6 Special precautions for user</th>
</tr>
</thead>
<tbody>
<tr>
<td>No special precautions required.</td>
</tr>
</tbody>
</table>

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable. Packaged goods.

15. Regulatory information

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture

National regulations:
Information about limitation of use: No data available.
Waterhazard class: nwg - nicht wassergefährdend (non-hazardous to waters).

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been conducted.

16. Other Information

Guarantee
This information has been compiled to the best of our knowledge; however, we make no claim as to its completeness and it is meant to serve only as a guideline. NETZSCH-Gerätebau GmbH disclaims any liability for damages which may occur in handling or in contact with these chemicals.

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