1. Identification

Product Name: Palladium on 1/8-inch alumina pellets
Cat No.: AC195080000; AC195080010; AC195080500; AC195082500
Synonyms: No information available
Recommended Use: Laboratory chemicals.
Uses advised against: Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company: Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Company: Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number
For information US call: 001-800-ACROS-01 / Europe call: +32 14 57 52 11
Emergency Number US: 001-201-796-7100 / Europe: +32 14 57 52 99
CHEMTREC Tel. No.US: 001-800-424-9300 / Europe: 001-703-527-3887

2. Hazard(s) identification

Classification

Acute Inhalation Toxicity - Dusts and Mists Category 4

Label Elements

Signal Word
Warning

Hazard Statements
Harmful if inhaled
Precautionary Statements

Prevention
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area

Inhalation
Call a POISON CENTER or doctor/physician if you feel unwell
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Disposal
Dispose of contents/container to an approved waste disposal plant

Hazard not otherwise classified (HNOC)

Other hazards
Hygroscopic. May cause skin, eye, and respiratory tract irritation. May be harmful if swallowed. May be harmful in contact with skin.

3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum oxide</td>
<td>1344-28-1</td>
<td>&gt;99</td>
</tr>
<tr>
<td>Palladium</td>
<td>7440-05-3</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

4. First-aid measures

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact
Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Inhalation
Remove to fresh air. Get medical attention. If not breathing, give artificial respiration.

Ingestion
Do NOT induce vomiting. Get medical attention.

Most important symptoms and effects
No information available.

Notes to Physician
Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media
No information available

Flash Point
No information available

Method -
No information available

Autoignition Temperature
No information available

Explosion Limits
No information available
Palladium on 1/8-inch alumina pellets

Revision Date 24-Dec-2021

Upper
No data available

Lower
No data available

Sensitivity to Mechanical Impact
No information available

Sensitivity to Static Discharge
No information available

Specific Hazards Arising from the Chemical
Explosive properties. Non-combustible.

Hazardous Combustion Products
Phosgene. Hydrogen chloride gas.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>1</td>
<td>N/A</td>
</tr>
</tbody>
</table>

6. Accidental release measures

Personal Precautions
Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation. Avoid contact with skin, eyes or clothing.

Environmental Precautions
See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up
Sweep up and shovel into suitable containers for disposal.

7. Handling and storage

Handling
Ensure adequate ventilation. Wear personal protective equipment/face protection. Avoid dust formation. Avoid contact with skin, eyes or clothing. Avoid breathing dust/fume/gas/mist/vapors/spray.

Storage.

8. Exposure controls / personal protection

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum oxide</td>
<td>TWA: 1 mg/m³</td>
<td>(Vacated) TWA: 10 mg/m³ (Vacated) TWA: 5 mg/m³ TWA: 15 mg/m³ TWA: 5 mg/m³</td>
<td>TWA: 10 mg/m³ TWA: 1 ppm</td>
<td></td>
</tr>
</tbody>
</table>

Legend

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration

Engineering Measures
None under normal use conditions.

Personal Protective Equipment

Eye/face Protection
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection
Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection
No protective equipment is needed under normal use conditions.
9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Grey</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
</tr>
<tr>
<td>pH</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (solid,gas)</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability or explosive limits Upper</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability or explosive limits Lower</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>No information available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No information available</td>
</tr>
<tr>
<td>Partition coefficient; n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>2000 °C</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

| Reactive Hazard                             | None known, based on information available |
| Stability                                   | Stable under normal conditions.            |
| Conditions to Avoid                         | Incompatible products. Exposure to moist air or water. |
| Incompatible Materials                      | Strong acids, Strong bases, halocarbons    |
| Hazardous Decomposition Products            | Phosgene, Hydrogen chloride gas            |
| Hazardous Polymerization                    | Hazardous polymerization does not occur.   |
| Hazardous Reactions                         | None under normal processing.              |

11. Toxicological information

Acute Toxicity

<table>
<thead>
<tr>
<th>Component Information</th>
<th>LD50 Oral ( Rat )</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation (OECD Guideline 403)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum oxide</td>
<td>&gt; 5000 mg/kg</td>
<td>Not listed</td>
<td>&gt; 2.3 mg/l 4 h</td>
</tr>
<tr>
<td></td>
<td>(OECD Guideline 401)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Toxicologically Synergistic Products

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation

May cause skin, eye, and respiratory tract irritation

Sensitization

No information available

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.
Palladium on 1/8-inch alumina pellets

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>IARC</th>
<th>NTP</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>Mexico</th>
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<tbody>
<tr>
<td>Aluminum oxide</td>
<td>1344-28-1</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Palladium</td>
<td>7440-05-3</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Mutagenic Effects: No information available
Reproductive Effects: No information available.
Developmental Effects: No information available.
Teratogenicity: No information available.

STOT - single exposure: None known
STOT - repeated exposure: None known

Aspiration hazard: No information available

Symptoms / effects, both acute and delayed: No information available
Endocrine Disruptor Information: No information available

Other Adverse Effects: The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Persistence and Degradability: Insoluble in water
Bioaccumulation/ Accumulation: No information available.
Mobility: Is not likely mobile in the environment due its low water solubility.

13. Disposal considerations

Waste Disposal Methods: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT: Not regulated
TDG: Not regulated
IATA: Not regulated
IMDG/IMO: Not regulated

15. Regulatory information

United States of America Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>TSCA</th>
<th>TSCA Inventory notification - Active-Inactive</th>
<th>TSCA - EPA Regulatory Flags</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum oxide</td>
<td>1344-28-1</td>
<td>X</td>
<td>ACTIVE</td>
<td></td>
</tr>
<tr>
<td>Palladium</td>
<td>7440-05-3</td>
<td>X</td>
<td>ACTIVE</td>
<td></td>
</tr>
</tbody>
</table>

Legend:
TSCA: US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
‘-’ - Not Listed
TSCA 12(b) - Notices of Export: Not applicable
International Inventories
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>PICCS</th>
<th>ENCS</th>
<th>ISHL</th>
<th>AICS</th>
<th>IECSC</th>
<th>KECL</th>
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</thead>
<tbody>
<tr>
<td>Aluminum oxide</td>
<td>1344-28-1</td>
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<td>-</td>
<td>215-691-6</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>KE-01012</td>
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<tr>
<td>Palladium</td>
<td>7440-05-3</td>
<td>X</td>
<td>-</td>
<td>231-115-6</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>KE-27744</td>
<td></td>
<td></td>
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</table>

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

<table>
<thead>
<tr>
<th>SARA 313</th>
<th>Component</th>
<th>CAS No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aluminum oxide</td>
<td>1344-28-1</td>
<td>&gt;99</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum oxide</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>

U.S. Department of Transportation

Reportable Quantity (RQ): N

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH

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

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>OECD HPV</th>
<th>Persistent Organic Pollutant</th>
<th>Ozone Depletion Potential</th>
<th>Restriction of Hazardous Substances (RoHS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum oxide</td>
<td>1344-28-1</td>
<td>Listed</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>--------------</td>
<td>--------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>----------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>1344-28-1</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Palladium</td>
<td>7440-05-3</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### 16. Other information

**Prepared By**
Regulatory Affairs  
Thermo Fisher Scientific  
Email: EMSDS.RA@thermofisher.com

**Creation Date**  
22-Sep-2009

**Revision Date**  
24-Dec-2021

**Print Date**  
24-Dec-2021

**Revision Summary**  
This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**Disclaimer**  
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of SDS