SAFETY DATA SHEET
PALLADIUM ON ALUMINA CATALYST

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: PALLADIUM ON ALUMINA CATALYST

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

Use of substance / mixture: PC21: Laboratory chemicals.

1.3. Details of the supplier of the safety data sheet

Company name: Elemental Microanalysis Ltd
1 Hameldown Road Okehampton
Okehampton
Devon
EX20 1UB
United Kingdom
Tel: 44(0)183754446
Fax: 44(0)183754544
Email: info@microanalysis.co.uk

1.4. Emergency telephone number

Emergency tel: +44 (0) 7990 767375 (24 hours)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: This product has no classification under CLP.

2.2. Label elements

Label elements: This product has no label elements.

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

* Hazardous ingredients:
Section 4: First aid measures

4.1. Description of first aid measures

**Skin contact:** Wash immediately with plenty of soap and water. Remove all contaminated clothes and footwear immediately unless stuck to skin. Consult a doctor.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Wash out mouth with water. If conscious, give half a litre of water to drink immediately.

**Inhalation:**Move to fresh air in case of accidental inhalation of vapours. Consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** There may be irritation of the throat.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.

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

**Immediate / special treatment:** Not applicable.

Section 5: Fire-fighting measures

5.1. Extinguishing media

**Extinguishing media:** Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam. Suitable extinguishing media for the surrounding fire should be used.

5.2. Special hazards arising from the substance or mixture

5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.
Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not create dust.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Use industrial vacuum cleaner to remove material. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid the formation or spread of dust in the air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep away from sources of ignition. Keep container tightly closed. Avoid incompatible materials and conditions - see section 10 of SDS.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/ personal protection

8.1. Control parameters

Hazardous ingredients:

ALUMINIUM OXIDE

<table>
<thead>
<tr>
<th>Workplace exposure limits</th>
<th>Respirable dust</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>8 hour TWA</td>
</tr>
<tr>
<td>EU</td>
<td>-</td>
</tr>
</tbody>
</table>

DNEL/ PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is exhaust ventilation of the area.

Respiratory protection: Respiratory protective device with particle filter. Particle filter class P3S (EN143).

Hand protection: Protective gloves.

[cont...]
SAFETY DATA SHEET
PALLADIUM ON ALUMINA CATALYST

Eye protection: Safety glasses. Ensure eye bath is to hand.
Skin protection: Protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Solid
Colour: Brown
Odour: Odourless
Evaporation rate: No data available.
Oxidising: No data available.
Solubility in water: Insoluble
Viscosity: No data available.
Boiling point/range°C: No data available.
Flammability limits %: lower: No data available.
Flash point°C: No data available.
Autoignition temperature°C: No data available.
Relative density: No data available.
VOC g/l: No data available.
Melting point/range°C: No data available.
Part.coef. n-octanol/ water: No data available.
Vapour pressure: No data available.
PpH: No data available.

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat. Flames. Sources of ignition.

10.5. Incompatible materials


10.6. Hazardous decomposition products

Haz. comp. products: In combustion emits toxic fumes.
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Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

<table>
<thead>
<tr>
<th>ALUMINIUM OXIDE</th>
<th>ORAL</th>
<th>RAT</th>
<th>LD50</th>
<th>10000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>PALLADIUM</td>
<td>ORAL</td>
<td>RAT</td>
<td>LD50</td>
<td>&gt;9000 mg/kg</td>
</tr>
</tbody>
</table>

Toxicity values: No data available.

Symptoms / routes of exposure

- Skin contact: There may be mild irritation at the site of contact.
- Eye contact: There may be irritation and redness.
- Ingestion: There may be irritation of the throat.
- Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

12.2. Persistence and degradability

Persistence and degradability: * No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential: * No data available.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: * No data available.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

[cont...]

Page: 5
Section 14: Transport information

Transport class: This product does not require a classification for transport.

Section 15: Regulatory information

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

Specific regulations: Not applicable.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3:

H315: Causes skin irritation.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.