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

1.1 Product identifier
- Trade name: Rhodium, Rhodium powder
- CAS Number:
  7440-16-6
- EC number:
  231-125-0

1.2 Relevant identified uses of the substance or mixture and uses advised against
- Application of the substance / the mixture
  - Preparation of catalysts
  - Precious metal alloy for technical purposes
  - Intermediate

Manufacturer/Supplier:
Heraeus Deutschland GmbH & Co. KG
Heraeusstr. 12-14
D-63450 Hanau
Germany
Tel: +49-(0)6181-355707

Further information obtainable from: sds@heraeus.com

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
  The substance is not classified according to the CLP regulation.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC
  Not applicable.

2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008
  Void
- Hazard pictograms
  Void
- Signal word
  Void
- Hazard statements
  Void

Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation: Substances
- CAS No. Description
  7440-16-6 rhodium
- Identification number(s)
  EC number: 231-125-0

SECTION 4: First aid measures

4.1 Description of first aid measures
- General information:
  In case of accident or if you feel unwell, seek medical advice immediately.
- After inhalation:
  After inhalation of dust or powder seek medical advice.
- After skin contact:
  Fine sized material wash off with plenty of water. If skin irritation continues, consult a doctor.
- After eye contact:
  Fine sized material in the eye rinse immediately with plenty of water (15 minutes), also under the eyelids. Call a doctor immediately.
Trade name: Rhodium, Rhodium powder

- After swallowing: Rinse mouth with water after swallowing of fine sized material. If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
  - Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions. CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- 5.2 Special hazards arising from the substance or mixture
  - The product is not combustible.
  - Fine sized metal shows catalytic effects and can accelerate combustion processes. Keep away from combustible material.
- 5.3 Advice for firefighters
  - Protective equipment:
    - Wear self-contained respiratory protective device.
    - Wear fully protective suit.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Avoid formation of dust.
- 6.2 Environmental precautions: No special measures required.
- 6.3 Methods and material for containment and cleaning up: Pick up mechanically. Send for recovery or disposal in suitable receptacles.
- 6.4 Reference to other sections
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling No special measures required.
- Information about fire - and explosion protection: The product is not combustible. see chapter 5
- 7.2 Conditions for safe storage, including any incompatibilities
  - Storage:
    - Requirements to be met by storerooms and receptacles: No special requirements.
    - Information about storage in one common storage facility: Not required.
    - Further information about storage conditions: None.
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- 8.1 Control parameters
  - Ingredients with limit values that require monitoring at the workplace: Additional information: The lists valid during the making were used as basis.
8.2 Exposure controls

- Personal protective equipment:
  - General protective and hygienic measures:
    Wash hands before breaks and at the end of work.
    Do not eat or drink while working.
    Do not inhale dust / smoke / mist.
  - Respiratory protection: If dust or spray is present use respiratory protection filter P3.
  - Protection of hands: No chemical-protective gloves required.
  - Eye protection:
    Necessarily if material in form of dust is present.
    Safety glasses
  - Body protection: Light weight protective clothing

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
  - General Information
    - Form: Solid in various forms
      Particulate
      Powder
    - Colour: Silver-coloured
    - Odour: Odourless
  - Change in condition
    - Melting point/Melting range: 1966 °C
    - Boiling point/Boiling range: 3727 °C
  - Flash point: Not applicable.
  - Flammability (solid, gaseous): Product is not flammable.
  - Danger of explosion: Product does not present an explosion hazard.
  - Density at 20 °C: 12,41 g/cm³
  - Solubility in / Miscibility with water: Insoluble.

- 9.2 Other information
  No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity
- 10.2 Chemical stability
  - Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.
- Additional information: -

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
  - Acute toxicity:
  - Primary irritant effect:
    - on the skin: No irritant effect.
**SECTION 12: Ecological information**

- **12.1 Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
  - **General notes:** Generally not hazardous for water

**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
  - **Recommendation**
    - Contact manufacturer for recycling information.
    - Disposal must be made according to official regulations.
  - **Uncleaned packaging:**
    - **Recommendation:** Disposal must be made according to official regulations.

**SECTION 14: Transport information**

- **14.1 UN-Number**
  - **ADR, IMDG, IATA** Void
- **14.2 UN proper shipping name**
  - **ADR** Void
  - **IMDG, IATA** Void
- **14.3 Transport hazard class(es)**
  - **ADR, IMDG, IATA**
    - **Class** Void
- **14.4 Packing group**
  - **ADR, IMDG, IATA** Void
- **14.5 Environmental hazards:** Not applicable.
- **14.6 Special precautions for user** Not applicable.
- **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **UN "Model Regulation":** -

(Contd. on page 5)
SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  No further relevant information available.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing MSDS: HH-EHS- Chemical Safety
- Abbreviations and acronyms:
  RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  EINECS: European Inventory of Existing Commercial Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
- * Data compared to the previous version altered.