

Safety data sheet

Refined rhodium - Powder

SDS Reg. No.72386442.24.45041

Date 31.07.2018

Urals Innovative Technologies

Version: R 1.0

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

Use: Chemical

Company:

JSC " Urals' Innovative Technologies "

(the abbreviation «URALINTECH»)

18, Kosmonavtov avenue, 620017 Ekaterinburg, Russia

Tel +7(343) 270-87-00, 380-02-36

Fax +7(343) 270-87-01

E-mail: office@pm-ural.com

www.uralinteh.com

2. Hazard identification

2.1 Classification of the substance or mixture

This substance is not classified as dangerous according to European Union legislation.

2.2 Label elements

This substance is not classified as dangerous according to European Union legislation.

2.3 Other hazards

The PBT and vPvB criteria of Annex XIII to the regulation does not apply to inorganic substances.

3. Composition/information on ingredients

Chemical nature

Inorganic metal salt

Hazardous ingredients

Rhodium powder

Content (W/W): 99,90 - 99,97 %

CAS Number: 7440-16-6

EC-Number: 231-125-0



Safety data sheet

Refined rhodium - Powder

SDS Reg. No.72386442.24.45041

Date 31.07.2018

Urals Innovative Technologies

Version: R 1.0

4. First-aid measures

4.1 Description of first aid measures

4.1.2 Inhalation

Remove affected person from the immediate area. Ensure supply of fresh air. If breathing is irregular or stopped, administer artificial respiration. Consult a physician.

4.1.3 Skin contact

Wash off with soap and plenty of water. Remove soiled or soaked clothing immediately. Wash contaminated clothing before re-use.

4.1.4 Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.

4.1.5 Ingestion

Rinse mouth. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Treat symptomatically.

4.3 Indication of immediate medical attention and special treatment needed

No hazards which require special first aid measures.

5. Firesighting measures

5.1 Extinguishing media

5.1.1 Suitable extinguishing media

The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment e.g.: Dry powder; Carbon dioxide (CO₂); Water spray jet; Foam.

5.1.2 Extinguishing media which must not be used for safety reasons

Not applicable.

5.2 Special hazards arising from the substance or mixture

In the event of fire the following can be released: Metallic oxides;

5.3 Advice for firefighters

Wear self-contained breathing apparatus and protective suit.



Safety data sheet

Refined rhodium - Powder

SDS Reg. No.72386442.24.45041

Date 31.07.2018

Urals Innovative Technologies Version: R 1.0

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Refer to protective measures listed in sections 7 and 8. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

6.2 Environmental precautions

Pick up mechanically. Send in suitable containers for recovery or disposal. Should not be released into the environment.

6.3 Methods and materials for containment and cleaning up

Pick up mechanically. Send in suitable containers for recovery or disposal.

6.4 Reference to other sections

See also section 8,13.

7. Handling and storage

7.1 Precautions for safe handling

Avoid dust formation.

7.2 Conditions for safe storage, including any incompatibilities

Keep in a dry, cool place.

7.3 Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1 Control parameters

8.1.1 Threshold limits

Rhodium	0.1 mg/m ³ (8 h)
	Rh Finland, Fume and inhable dust

8.1.2 National occupational exposure limits

TWA value 0.1 mg/m³ Fume and inhable dust

STEL value 0.3 mg/m³ Fume and inhable dust



Safety data sheet

Refined rhodium - Powder

SDS Reg. No.72386442.24.45041

Date 31.07.2018

Urals Innovative Technologies

Version: R 1.0

8.2 Exposure controls**8.2.1 Appropriate engineering controls**

Keep away from food, drink and animal feedingstuffs. Keep working clothes separately.

8.2.2.1 Respiratory protection

In the case of dust or aerosol formation use respirator with an approved filter. Half mask with a particle filter P2 (EN 143).

8.2.2.2 Hand protection

Protective gloves: Leather; Butyl-rubber; Nitrile rubber

8.2.2.3 Eye/face protection

Face-shield; Safety Glasses

8.2.2.4 Skin protection

Clothing as usual in the chemical industry.

8.2.3 Environmental exposure controls

The employer shall fulfill requirements of IPPC Directive.

9. Physical and chemical properties**9.1 Important Health Safety and Environmental Information**

9.1.1 Appearance	Appearance: Powder Colour: Silver grey
9.1.2 Odour	odourless
9.1.3 Odour threshold	Not applicable.
9.1.4 pH	insoluble
9.1.5 Melting point/freezing point	1960-1963°C
9.1.6 Initial boiling point and boiling range	Not applicable to solids that melt >300°C.
9.1.7 Flash point	Not applicable. inorganic substance
9.1.9 Flammability (solid, gas)	The product is not flammable.
9.1.10 Explosive properties	
9.1.10.1 Lower explosion limit	Not explosive
9.1.10.2 Upper explosion limit	Not explosive
9.1.11 Vapour pressure	Not applicable to solids that melt >300°C.



Safety data sheet

Refined rhodium - Powder

SDS Reg. No.72386442.24.45041

Date 31.07.2018

Urals Innovative Technologies

Version: R 1.0

9.1.12 Density	12,4 g/cm ³
9.1.13 Solubility(ies)	
9.1.14.1 Water solubility	Insoluble
9.1.15 Partition coefficient: n-octanol/water	Not applicable. inorganic substance
9.1.16 Auto-ignition temperature	The product is not flammable.
9.1.17 Viscosity	Not applicable. Solid
9.1.18 Explosive properties	Not explosive
9.1.19 Oxidising properties	no oxidizing
9.2 Other information	
No data available.	

10. Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Reacts with sulphuric acid, hydrogen bromide and molten cyanides.

10.4 Conditions to avoid

Avoid dust formation.

10.5 Incompatible materials

Acids;Bases; Oxidizing agents;

10.6 Hazardous decomposition products

Metallic oxides.



Safety data sheet

Refined rhodium - Powder

SDS Reg. No.72386442.24.45041

Date 31.07.2018

Urals Innovative Technologies

Version: R 1.0

11. Toxicological information

11.1 Information on toxicological effects

11.1.1 Acute toxicity

If swallowed: LD50/oral/rat = >2000 mg/kg

In case of skin contact: No studies have been found.

If inhaled: No studies have been found.

11.1.2 Irritation and corrosion

According to the classification criteria of the European Union, the product is not considered as being a skin irritant.

According to the classification criteria of the European Union, the product is not considered as being an eye irritant.

11.1.3 Sensitisation

Not classified as dangerous. Respiratory sensitizer

11.1.4 Subacute, subchronic and prolonged toxicity

Not classified as dangerous.

11.1.5 STOT-single exposure

Not classified as dangerous.

11.1.6 STOT-repeated exposure

Not classified as dangerous.

11.1.7 Aspiration hazard

Not applicable.

11.1.8 Other information on acute toxicity

No studies have been found.



Safety data sheet

Refined rhodium - Powder

SDS Reg. No.72386442.24.45041

Date 31.07.2018

Urals Innovative Technologies

Version: R 1.0

12. Ecological information

12.1 Toxicity

12.1.1 Aquatic toxicity

Not classified as Dangerous for the environment.

12.1.2 Toxicity to other organisms

No data available.

12.2 Persistence and degradability

12.2.1 Biodegradation

Not applicable.

12.2.2 Chemical degradation

Not applicable.

12.3 Bioaccumulative potential

Bioaccumulation is unlikely.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

The PBT and vPvB criteria of Annex XIII to the regulation does not apply to inorganic substances.

12.6 Other adverse effects

No data available.

13. Disposal considerations

13.1 Waste treatment methods

Contaminated packaging should be emptied as far as possible. Packaging that cannot be cleaned should be disposed as special waste in compliance with local and national regulations.

13.2 Waste from residues / unused products

Contact manufacturer. Dispose of as special waste in compliance with local and national regulations.



Safety data sheet

Refined rhodium - Powder

SDS Reg. No.72386442.24.45041

Date 31.07.2018

Urals Innovative Technologies Version: R 1.0

14. Transport information

14.1 UN number	Not classified as dangerous.
14.2 UN proper shipping name	Not classified as dangerous in the meaning of transport regulations.
14.3 Transport hazard class(es)	Not classified as dangerous in the meaning of transport regulations.
14.4 Packing group	Not classified as dangerous in the meaning of transport regulations.
14.5 Environmental hazards	Not classified as dangerous in the meaning of transport regulations.
14.6 Special precautions for users	Not classified as dangerous in the meaning of transport regulations.
Further information	Not classified as dangerous in the meaning of transport regulations.
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	
Not classified as dangerous in the meaning of transport regulations.	

15. Regulatory information

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

None.

15.2 Chemical safety assessment

None.



Safety data sheet

Refined rhodium - Powder

SDS Reg. No.72386442.24.45041

Date 31.07.2018

Urals Innovative Technologies Version: R 1.0

16. Other information

16.1 Additions, Deletions, Revisions

SDS sections updated No dangerous ingredients according to Regulation (EC) No. 1907/2006.

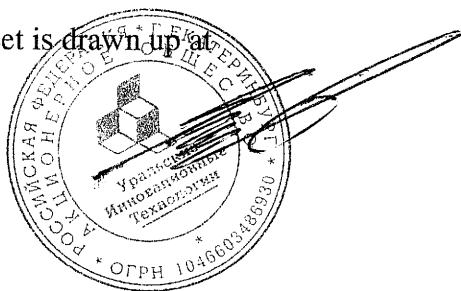
16.2 Additional information available from:

Disclaimer

The information in this document is believed to be correct as of the date issued. However, no warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed or is to be implied regarding the accuracy or completeness of this information, the results to be obtained from the use of this information or the product, the safety of this product, or the hazards related to its use. This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof.

The current safety data sheet is drawn up at

General Director



JSC «URALINTECH»

A.V. Ermakov