SAFETY DATA SHEET
Palladium ingot

The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued	22.06.2017

1.1. Product identifier

Product name	Palladium ingot
REACH Reg. No.	01-2120140175-66-0007
CAS no.	7440-05-3
EC no.	231-115-6
Article no.	PdA-0, PdA-1, PdA-2

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

Use of the substance/preparation	jewellery industry stomatology medicine investment
Uses advised against	No.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name	JSC KRASTSVETMET
Office address	1 Transportny Proyezd
Postcode	660027
City	Krasnoyarsk
Country	Russian Federation
Tel	+7 (391) 259-33-33 (ext. 4720)
Fax	+7 (391) 259-39-42
E-mail	product.safety@nornickel.fi

1.4. Emergency telephone number

Emergency telephone	Description: 3E EH&S Mission Control Center: +44 20 35147487 / Access Code: 334656

SECTION 2: Hazards identification

2.1. Classification of substance or mixture

Substance / mixture hazardous properties	The product is not classified.

2.2. Label elements

Other Label Information (CLP)	No recommendation given.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance	Identification	Classification	Contents
Palladium	CAS no.: 7440-05-3 EC no.: 231-115-6 REACH Reg. No.: 01-2120140175-66-0007		99,90 – 99,98 %

SECTION 4: First aid measures

4.1. Description of first aid measures

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.
Skin contact	Wash off with soap and plenty of water. Remove soiled or soaked clothing immediately. Wash contaminated clothing before re-use.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.
Ingestion	Rinse mouth. Consult a physician.

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

General symptoms and effects	Treat symptomatically.

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

Medical treatment	No hazards which require special first aid measures.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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;
Improper extinguishing media	Not applicable.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Metallic oxides;

5.3. Advice for firefighters

Personal protective equipment	Use personal protective equipment as required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Other information	Pick up mechanically. Send in suitable containers for recovery or disposal. (Section 13)

6.4. Reference to other sections

Other instructions	See also section 8,13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Avoid dust formation.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Keep in a dry, cool place.

7.3. Specific end use(s)

Recommendations	http://epmf.be/index.php/reach-consortiumleft/platinum-group-metals-pgm

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Substance	Identification	Value	TWA Year
Palladium	CAS no.: 7440-05-3	TWA (8h): 0,5 mg/m3	

8.2. Exposure controls

Precautionary measures to prevent exposure

Product-related measures to prevent exposure	Keep away from food, drink and animal feeding stuffs. Keep working clothes separately.

Eye / face protection

Suitable Eye Protection	Use eye protection. Wear full-face visor or shield.

Hand protection

Suitable gloves type	Wear protective gloves.
Suitable materials	Leather. Butyl rubber. Nitrile.
Breakthrough time	Value: Technically not feasible.

Skin protection

Suitable protective clothing	Wear apron or protective clothing in case of contact.

Respiratory protection

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

Appropriate environmental exposure control

Environmental exposure controls	The employer shall fulfill requirements of IPPC Directive.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Colour	Silver. White.
Odour	No characteristic odour.
Odour limit	Comments: Not relevant.
pH	Status: In delivery state Comments: Not relevant.
Melting point / melting range	Comments: 1552-1554°C
Boiling point / boiling range	Comments: Not applicable to solids that melt >300°C.
Flash point	Comments: inorganic Not applicable.
Flammability (solid, gas)	The product is not flammable.
Vapour pressure	Comments: Not applicable to solids that melt >300°C.
Vapour density	Comments: Not applicable. inorganic substance
Specific gravity	Comments: 12.02 g/cm3 at 20°C
Partition coefficient: n-octanol/water	Comments: Not applicable. inorganic substance
Spontaneous combustability	Comments: The product is not flammable.
Viscosity	Comments: Technically not feasible. Solid
Explosive properties	Not explosive
Oxidising properties	no oxidizing

9.2. Other information

Other physical and chemical properties

Physical and chemical properties	Ingot

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stability	Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Conditions to avoid	Avoid dust formation.

10.5. Incompatible materials

Materials to avoid	Strong acids ; Oxidizing agents; Bases

10.6. Hazardous decomposition products

Hazardous decomposition products	Metallic oxides;

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Substance	Palladium
Acute toxicity	**Type of toxicity:** Acute **Value:**

Other information regarding health hazards

Assessment of acute toxicity classification	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.
Skin corrosion / irritation, other information	Technically not feasible.
Assessment of skin corrosion / irritation, classification	According to the classification criteria the product is not considered as being an eye irritant. According to the classification criteria the product is not considered as being a skin irritant.
General respiratory or skin sensitisation	Not classified as skin and respiratory sensitizer.
Mutagenicity	None.
Carcinogenicity	None.
Assessment carcinogenicity classification	Not classified as dangerous.
Reproductive toxicity	Not classified as dangerous.
Aspiration hazard, comments	Not applicable.

Symptoms of Exposure

Other Information	No studies have been found.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity	Not classified as dangerous to the environment.

12.2. Persistence and degradability

Biodegradability	Comments: Technically not feasible.
Persistence degradability additional info	Not applicable.
Persistence and degradability	Not applicable.

12.3. Bioaccumulative potential

Bioaccumulative potential	Bioaccumulation is unlikely.

12.4. Mobility in soil

Mobility	No data available.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

Other adverse effects / Remarks	no data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal	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.
Packaging classified as hazardous waste	No
Other Information	Contact manufacturer. Dispose of as special waste in compliance with local and national regulations.

SECTION 14: Transport information

14.1. UN number

Comments	Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Comments	Not classified as dangerous in the meaning of transport regulations.

14.4. Packing group

14.5. Environmental hazards

Comments	Not classified as dangerous in the meaning of transport regulations.

14.6. Special precautions for user

Special safety precautions for user	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

Product name	Not relevant.

SECTION 15: Regulatory information

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

Assessed restrictions	None.

15.2. Chemical safety assessment

Chemical safety assessment performed	Yes

SECTION 16: Other information

Additional information	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.
Information which has been added, deleted or revised	according to Regulation (EC) No. 1907/2006