Governance Management Plan

A Global Framework

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Document history

The following table lists all document revisions and details the changes which have been made at the indicated dates.

Revision	Date	Comments	Author	Approved
0_DRAFT	10 May 2019	First issue	JS	
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1 Purpose and Scope

This document provides a global framework for establishing governance for the activities of the Osmium-Institut Deutschland zur Inverkehrbringung und Zertifizierung von Osmium GmbH (the "Osmium-Institute Germany") and affiliated Osmium-Institutes (jointly referred to as the "Affiliated Institutes").

The Osmium-Institute Germany is the central institution to establish a global governance architecture, supply chain and market to facilitate secure trading of crystalline osmium {"osmium").

Governance describes the structures and processes of exercising control over an organisation. It relates to the individuals and forums ("governance forums") and respective interaction and decision-making processes which are in place for this purpose. Governance forums act based on clear terms of reference which are defined outside the organisation, need to align with the level of decision-making required and be appropriate for the nature, complexity and size of the organisation as well as for the risks the organisation is exposed to.

This Governance Management Plan addresses the following governance arrangements and activities:

- The established governance forums
- Identification and management of conflicts of interest
- Quality Management
- Supply chain management
- Authentication and certification of osmium
- Product safety
- Business continuity planning

The information and arrangements set out in this Governance Management Plan will be reviewed on a regular basis and revised as required to adapt to the nature of any changing circumstances.

2 Application

Compliance with this Governance Management Plan is binding for the governance forums detailed in Section 3 (Governance forums), the Osmium-Institute Germany and the Affiliated Institutes.

3 Governance forums

This section sets out important governance forums and details their role and responsibilities.

3.1 Executive Management

3.1.1 Members

The Executive Management comprises the Managing Director (Mr Ingo Wolf) and Vice Director (Ms Scarlett Clauss) of the Osmium-Institute Germany and is responsible for managing the day to day operations.

3.1.2 Functions and responsibilities

The Executive Management is headed by the Managing Director who has the following key responsibilities:

- Represent the Osmium-Institute Germany, the Institutes, and OSMIUM as an emerging global brand for the supply of crystalline osmium;

- Recruit new partners;
- Coordinate and manage the supply chain for osmium (both inbound and outbound logistics);
- Set standards for authentication and certification;
- Establish governance for secure market transactions of osmium by maintaining a system enabled by secure IT infrastructure and comprising:
    - The International Osmium Database;
    - The Osmium Identification Code ("OIC");
    - The Owner Change Code ("OCC");
- Develop information material about osmium for market education purposes;
- Devise strategies to build and grow local markets;
- Manage initiatives involving the Affiliated Institutes and other business partners;
- Ensure the availability and consistency of an online presence as an important tool of communication with the market.

The Vice Director supports the Director in performing these duties.

Both directors are to avoid conflicts of interest between the directors and the Affiliated Institutes. They must disclose any actual or perceived conflicts of interest to the affected parties. Further details are provided in section 4.

3.2 Procurement committee

3.2.1 Chair and members

This committee is chaired by Ingo Wolf. Further members include Scarlett Clauss and the crystallisation entity in Switzerland.

3.2.2 Functions and responsibilities

The most important function is the determination of the sources for the acquisition of raw osmium and the protection of existing contractual relationships.

Current suppliers are reviewed on an annual basis and this may result in the removal of existing and/or the addition of new suppliers, following the outcomes of the due diligence process with prospective partner companies.

In addition, the relationship with the crystallisation entity is managed in this panel.

3.3 Human resources committee

3.3.1 Chair and members

This committee is chaired by Ingo Wolf. Further members include Scarlett Clauss.

3.3.2 Functions and responsibilities

Key activity of this committee is the hiring of employees. This includes the development of requirements for new employees for the existing departments and ensures that clear recruitment criteria are available. Detailed roles are defined as part of the recruitment process. Permanent employment decisions are taken at the conclusion of probation periods.

3.4 Research and development (R&D) committee

3.4.1 Chair and members

This committee is chaired by Ingo Wolf. Further members include the innovation camp at the Osmium-Institute Germany and a delegation of scientists familiar with crystallisation process.

3.4.2 Functions and responsibilities

This committee conducts investigations and internal projects to identify, evaluate and implement improvements in technology, certification, work design and business organisation, methodology and analytics.

Typically, this committee entrusts internal employees or external companies with managing individual initiatives. Based on the outcomes, new processes are set up and rolled out that improve the company's performance.

The goal of all R&D activities is to improve processes, increase product quality and to generate simplified processes with better output in the future. One focus is the currently high rejection rate in production, which is particularly high for three-dimensional objects.

3.5 Scientific advisory committee

3.5.1 Chair and members

This committee is chaired by Ingo Wolf. Further members include Mr Michael Raupenstrauch.

3.5.2 Functions and responsibilities

Key focus of this committee is the training of external partners because only excellently trained staff can answer the end customers' questions.

This includes but is not limited to the following activities:

- Definition and selection of training content;
- Definition of training levels;
- Classification of content into individual lessons;
- Development of structured teaching solutions;
- Development of "Train the Trainer" programs to enable scaling of teaching activity;
- Implementation of classroom training;
- Creation of textbooks and documentation;
- Production of instructional videos and integration into the existing websites.

3.6 Business Development Committee

3.6.1 Chair and members

This committee is chaired by Mr Stefan Schanderl.

3.6.2 Functions and responsibilities

3.6.2.1 Ethical Marketing

This function ensures that market development activities and interactions with prospective and existing clients is based on well-established facts to promote trust and credibility in the industry.

3.6.2.2 Customer Care

A key activity is obtaining feedback from the market and defining and/or improving processes that enhance customer relations. The main tasks include inbound controls, definition of outbound requirements as well as managing inquiries related to products, risks and partners.

Further customer care activities are:

- Development of meaningful packaging layout;
- Dissemination of information booklets;
- Ensuring transparent pricing;

- Highlighting existing and trusted online websites where further information can be obtained.

3.6.2.3 Collaboration Management

Collaboration initiatives with jewellery manufacturing, financial products, customs and exchanges are important pillars of the company and are essential for its communication with third parties.

Osmium-Institutes have only limited influence on the actions of third parties in the osmium market. Nevertheless, a good balance between all acting groups should be achieved.

For this reason, the requirements for new osmium products must be carefully verified with collaboration partners. This applies in particular to the following market segments respectively interest groups.

Jewellery industry

The requirements from the jewellery industry are more of a technical nature. Nevertheless, there are challenges to manage that are necessary to develop new products. This includes the acceptance of requirements by designers as well as the special requirements for quality and tolerances of production in a mass production scenario.

The communication with these parties serves the purpose of being able to react quickly to changes or requirements in the future and in this way to create a smooth process in production and production planning.

On the other hand, it is important to inform the jewellery industry, in particular manufacturers and designers, about technical feasibility in general. This includes production options, delivery parameters, processing security, as well as technical specifications of cutting and permissible minimal widths.

Financial products

Osmium-Institutes have no connection to financial markets and have no influence on them. However, efforts are underway by third parties to launch financial products related to osmium. These include options, funds and derivatives. The Osmium-Institutes are prohibited from influencing decisions, making recommendations or collaborating with any external parties in relation to these matters. Therefore, collaboration in this area is strictly limited to providing technical information.

Planned production capacities are required to be communicated by the Osmium-Institutes with a high level of restraint.

Financial instruments may be helpful in the future, however, Osmium-Institutes will not be part of these developments. One of the main reasons for this is that in the context of regulations and applicable legislation in a complex international environment, Osmium-Institutes are not meant to play a role in financial markets.

Yet, Osmium-Institutes are required to flag actual or potential conflicts with legislative bodies and control authorities if they become aware of any such conflicts.

Exchanges

Trading in osmium is currently limited to first delivery after certification. Other market transactions are still small at this point in time and take place rather inconspicuously via Internet or directly between trading parties.

It can be assumed that in the foreseeable future osmium is also traded on exchanges. As osmium is currently only traded physically, clarification is needed in cooperation with banks and other entities that manage the trade of certificates and structured papers how sufficient backing with physical osmium can be achieved.

For physical trading in osmium, there will be a number of platforms apart from the stock exchanges, which in addition to Amazon and Ebay offer osmium in crystalline form.

In these circumstances, the provision of prices in electronic form is expected to play an important role.

3.7 Corporate Governance Committee

3.7.1 Chair and members

This committee is chaired by Ingo Wolf. Further committee members will be appointed as required.

3.7.2 Functions and responsibilities

The Corporate Governance Committee is responsible for further developing and implementing this Governance Management Plan, and for monitoring compliance. The Corporate Governance Committee conducts audits to verify compliance to this Governance Management Plan annually.

The Corporate Governance Committee may take suggestions from anyone to further develop this Governance Management Plan.

If the Corporate Governance Committee establishes a lack of implementation of the Governance Management Plan or a breach of governance provisions, this shall be immediately reported in writing to the Executive Management.

3.8 Osmium World Council (OWC)

3.8.1 Introduction

The OWC was founded as an association in Austria by Mr Michael Gasser and Ingo Wolf.

The OWC is headquartered in Austria with its own governance arrangements, organisational structure and processes, which are not covered in this Governance Management Plan. Even though the information base of OWC activities is predominantly reliant on information developed and provided by the Osmium-Institute Germany, the OWC acts as an independent entity in the market and is not subject to the direction of Osmium-Institute Germany.

Funding is provided predominantly through donations and fees from guest speakers at the events of the OWC. Currently, the OWC only has employees who work on a voluntary basis. Future member nominations and appointments will be based on the OWC Terms of Reference / statutes and may include scientific advisors and subject matter experts in the fields of chemistry, physics and metallurgy, experts for financial and jewellery markets, as well as legal experts.

3.8.2 Functions and responsibilities

First and foremost, the OWC is responsible for the important tasks of collecting, reviewing and communicating information about osmium in the market.

The OWC gathers information and requirements from the market from various players and partners. These inquiries are documented and discussed with the Osmium-Institute Germany. If this results in suggestions for improvement, the Osmium-Institute Germany will draw up a proposal for action, which will be discussed internally and with partners. This may lead to a change in processes or strategy.

New and fresh perspectives are always welcome and should not be confused with lobbying.

The OWC also has the authority, based on voluntary self-regulation by the Osmium-Institutes, to evaluate, question and control their activities and processes. This includes but is not limited to data security, personnel management, certification, shipping, insurance and product innovation management.

Further tasks of the OWC include:

1. Provide guidance in all matters related to the introduction of osmium into the market;
2. Foster relationships with associations in the precious metals and mining industries;
3. Act as the conduit between investors and end customers in the market;
4. Disseminate expertise on osmium via the Internet and other media channels;
5. Provide the market with expertise in osmium;
6. Support information currency, width and depth to promote a relatively stable development and drive factual decision-making for market participants.

3.8.3 Annual symposium

The OWC organises the annual International Osmium Symposium, where country partners from the Affiliated Institutes meet and discuss a broad spectrum of topics related to osmium.

Even in today's technology-driven environment, the symposium should bring people together to discuss relevant topics face to face. Considering the large variety of languages and cultures involved, an annual meeting has particular value when new subject areas have to be discussed and new solutions have to be found.

If there are no such topics to be dealt with in a particular year, conversations may be held bilaterally and solutions are sought in small working groups, which are then submitted to the Osmium-Institute Germany with a request for review and approval.

The symposium also provides direct and targeted information to country partners and external partners about suppliers, producers and customers.

4 Avoidance of conflicts of interest

A "conflict of interest" may occur when the personal interest of a director or of an individual forming part of another governance forum is adverse to, or may appear to be adverse to, the interest of the Affiliated Institutes or any other entities or individuals that form either directly or indirectly part of the supply chain.

Conflicts of interest may relate to:

- Any other directors;
- Any other individual involved in any role in the global osmium business;
- Immediate family;
- Relationships between the Institutes and third parties;
- Gifts and other monetary on non-monetary benefits;
- Financial matters;
- Compensation from sources unrelated to osmium and the activities of the Affiliated Institutes.

The following two subsections detail how key conflicts of interest have been addressed by the Osmium-Institute Germany.

4.1 Remuneration and incentive schemes

In general, the system of the Osmium-Institutes has been designed in such a way that decision-makers forming part of the company's inner circle or external contractors and/or service providers cannot take a personal advantage from systemic decisions taken.

The principle of dual control is consistently applied to all critical decisions and also to the monitoring of business processes. In addition, individuals with greater decision-making authority within the

company structure take a direct share in the overall success of the company. This promotes alignment of company interests and individuals interests and therefore avoids conflicts of interest.

All employees are made aware of the importance of identifying situations which may pose a conflict of interest.

Specifically, two critical areas related to remuneration which could have resulted in conflicts of interest had to be addressed:

- Trading vs versus referral-based marketing;
- Remuneration of working time vs remuneration based on sold goods.

The following measures have been taken to ensure that conflicts of interest do not arise.

4.1.1 Trading vs versus referral-based marketing

Within the structures that were required to introduce osmium into the market, it was essential to complement the trading network of wholesalers and retailers with a system that rewards tipsters. Wholesalers buy goods at a discount and resell these goods to their customers. They realise a profit due to purchasing discounts as well as fluctuations in the price of osmium.

Partners who do not have the financial capability to buy goods, who are unable to trade because they do not own a company or who are subject to legal restrictions to competition in their existing profession will receive a referral commission that follows the established hierarchy of referrals. Commissions are calculated and paid directly by the Osmium-Institute Germany.

This separation enables the balancing of remuneration and financial risk which a partner takes through the advance purchase of goods—a task that a tipster does not need to carry out as his or her contribution consists solely of passing on information about prospective customers (buyers) to trading partners.

In this way, both trading partners and tipsters can benefit from each other and complement each other with a clear interface:

- Trading partners ensure the availability of goods and have a regional presence;
- Tipsters provide customer information and link prospective customers with trading partners.

4.1.2 Remuneration of working time vs remuneration based on sold goods

The Osmium-Institute Germany carries out several activities that are remunerated based on the number of hours worked an which are governed by conventional employment relationships.

These activities include office-based administrative and communication services. In addition, activities such as innovation management and the transport of goods are also remunerated based on the number of hours worked.

In the past, certification and shipping activities were remunerated based on the number of pieces shipped. This may lead to unequal treatment of employees and hence conflicts in the team. For this reason, when sales volume began to increase, a system was introduced to prevent these conflicts.

All transport and packaging services are now carried out by an external company, which can be monitored transparently, which has incorporated dual control principles in their own internal business processes and which invoices based on number of pieces. At the same time, this also ensures insurance without any gaps.

Further, all certification tasks were remunerated on a time basis and incentivised by introducing a quality surcharge due to the sensitivity of the work involved. Payroll services can now also be carried out based on conventional employee relationships. In addition, based on the transparency of working hours, there is also the possibility of outsourcing this work in the future.

4.2 Market coverage

The market for osmium includes investors as well as jewellery manufacturers. They represent two important target groups for the supply of osmium.

The main difference between both groups lies in the fact that jewellery manufacturers process goods further whereas investors store semi-finished products for the purpose of resale in the future.

Within the Osmium-Institutes, these two target groups need to be managed in different ways, not least because jewellery manufacturers require a higher degree of involvement. The requirements for manufacturing osmium jewellery include but are not limited to the following:

- Semi-finished osmium products need to be further cut into distinct shapes;
- Offcuts need to be recycled;
- Providing quotations is complex and requires detailed information from the customer;
- Often, jewellery manufacturing is end customer business;
- All jewellery needs to be individually certified, even if the pieces are very small;
- All osmium semi-finished products used in a single jewellery piece need to be aggregated upon the completion of production by means of the Owner Change Code (OCC).
- Jewellery is subject to a manufacturing risk and therefore needs to be insured prior to manufacturing;
- Individual osmium pieces for jewellery need to be transferred multiple times between different parties, which increases the risk of loss.

To counterbalance a potential imbalance arising from the specific requirements of jewellery manufacturing, Oslery GmbH was founded, a company which covers the jewellery sector independent of the Osmium-Institute Germany.

The foundation of Oslery GmbH provides the following benefits:

- Osmium jewellery can be offered by a professional company;
- Conflicts of interest and differences in strategic direction are minimised;
- The work in the institutes can be calculated more easily and is transparent;
- The times for making jewellery inlays have been reduced by 50 percent.

Oslery GmbH acts as a conventional wholesaler. Like any other wholesaler, the company acquires semi-finished products from Osmium-Institutes.

Oslery GmbH is owned and managed by Scarlett Clauss.

5 Quality management

The Osmium-Institute Germany and any other affiliated Institutes commit themselves to establishing and maintaining a Quality Management System ("QMS") which satisfies the requirements of the international standard ISO 9001 "Quality management systems—Requirements". The objective is to obtain certification that the QMS satisfies the requirements of this standard from an accredited body.

Key processes covered by quality assurance and quality control include but are not limited to:

- Incoming inspection;
- Cutting control;
- Control of degree of crystallisation;

- Warehouse monitoring;
- Inventory monitoring;
- Quality of service monitoring;
- Packaging;
- Public relations;
- Software quality and security (OIC database);
- Data transmission relating amongst others to the OCC.

Quality assurance and control activities under the QMS framework may also include audits to ensure compliance with internal quality requirements which are consistent with the requirements set forth in ISO 9001. This task is performed by specific employees.

Further organisational structures and processes to support the above processes operate under the same quality regime and include:

- Management of real estate and subsidiaries:
    - Definition of requirements for the acquisition of real estate, laboratories, shipping departments and security measures;
    - Establishment of subsidiaries, including decisions on locations for new companies and establishment of transparent management structures;
- Media department: Managing internal and external information, decision on the preparation and distribution of information, development of written documentation, award and quality control of translations;
- Work preparation: Definition of processes, provision of work materials, specification of work targets and KPIs, review of process implementation;
- Information Technology (IT): In-house development of bespoke software solutions, software testing, testing and use of data storage systems and transmission systems via Internet, development (including programming) and operation of online shops and Internet information portals.

Affiliated Osmium-Institutes which do not have their own Quality Management systems available must adhere to the applicable elements of the QMS of the Osmium-Institute Germany and take additional quality management measures to manage interfaces or close any remaining gaps due to structural and/or process interfaces.

6 Supply chain management

The objective of supply chain management is to maximise the reliability of all supply chain elements to establish a regime that allows for a plannable and transparent supply of crystalline osmium.

Supply chain elements that involve the Osmium-Institute Germany include:

1. Purchasing of mined raw osmium;
2. Crystallisation of raw osmium / osmium sponge;
3. Cutting of crystalline osmium;
4. Certifying and packaging of crystalline cut osmium.

The following subsections provide key information and references on sourcing raw osmium and crystalline osmium because these activities are essential to ensure product availability for the market.

6.1 Ethical sourcing of raw osmium

The Osmium-Institute Germany is committed to strict abidance by ethical sourcing and sustainability principles.

In doing so, the Osmium-Institute Germany follows a risk-based approach with a defined set of purchasing and supplier evaluation criteria as a key element of supplier due diligence.

Details on the management of ethical sourcing activities are provided in a separate document which can be made available upon request.

6.2 First procurement of crystalline osmium and recycling

After crystallisation, osmium is cut into standard or bespoke shapes by means of wire EDM cutting. This process results in offcuts, i.e. osmium which is "wasted" when cutting the desired shapes, and may also include contaminants such brass, tungsten and molybdenum.

Osmium offcuts with or without contaminants cannot simply be melted down and reused. For this reason, a recycling system has been established to return the osmium which is not useable after cutting back to the crystallisation cycle.

One of the biggest challenges of recycling is the purification of the material. The remaining osmium must first be weighed to determine the amounts that stuck to the EDM cutting wire, went into agents used for rinsing or sublimed. The remaining osmium offcuts / pieces are then dispatched, granulated and undergo the same initial process as the raw osmium prior to first crystallisation. The required purity can only be achieved after two complex sublimation steps. The purified osmium can then be used for (re)-crystallisation.

Since the recycling process is extremely complex and expensive, recycled and (re)-crystallised osmium has the same price as osmium which is crystallised for the first time.

7 Authentication and certification

Authentication and certification of crystalline osmium is a critical activity and shall meet the requirements of ISO 9001 clause 8 ("Operation").

Establishing governance for authentication and certification activities is a critical enabler for secure market transactions of osmium and preventing counterfeiting and fraud.

Since the breakthrough in crystallisation of osmium, the Osmium-Institute Germany has developed an authentication process which is based on a three-layered security architecture which is detailed in the following sections. Due to its reliance on intrinsic, unchangeable physical and geometrical properties of crystallised osmium, counterfeiting and fraud are virtually impossible.

7.1 Security architecture

Crystalline osmium has several intrinsic security features which, when combined, can be used to establish a multi-layered security architecture.

7.1.1 Layer 1: Density

With a density of 22.61 g/cm^3 osmium is the densest of all stable chemical elements (the notion *stable* excludes radioactive nuclides with a finite and often extremely short half-life period). This means that it is impossible to imitate osmium, for example by cladding a core of a different, less valuable material with osmium. In such as case, a density measurement will always show that the density of an imitation is less than the density of osmium.

#1: Osmium cannot be counterfeited because it has the highest density of all stable elements.

7.1.2 Layer 2: Crystal surface structure

When raw osmium is crystallised, osmium atoms are rearranged in a diamond crystal lattice structure. This transformation is accompanied by some significant changes in chemical and physical characteristics of the osmium. The change which is most directly perceived is the growth of osmium crystals. As microcrystals grow on a sapphire glass substrate during crystallisation, they slowly tend to form a macroscopic crystal surface structure. This structure is visible to the human eye and results in the characteristic silvery-blue osmium sparkle (the physical phenomenon is referred to as multidirectional specular reflection).

Most importantly, the crystal surface structure is unique for every osmium piece and cannot be modified after crystallisation because osmium is dimensionally stable and not malleable unlike other precious metals, e.g. gold. The crystal surface structure of every osmium piece with its corners and edges can be thought of as a 3d point cloud. Even the smallest product, an Osmium Diamond with 3 mm diameter, typically contains more than 1,500 such points.

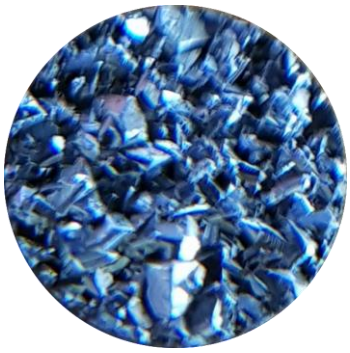

Figure 1: Osmium Diamond high-resolution photograph showing the unique crystal surface structure

#2: Osmium cannot be counterfeited because it has a unique crystal surface structure which is a unique identifier for a specific osmium piece, acting like a fingerprint.

7.1.3 Layer 3: The Osmium Identification Code

The Osmium Identification Code ("OIC") is a feature which makes osmium tradeable on the international market. To achieve this, other precious metals typically have a hallmark on their face which makes them identifiable and guarantees their fineness and quality.

The OIC is the hallmark for osmium. The crucial difference to other precious metals is that in the case of osmium this hallmark does not need to appear directly on the osmium piece. The reason is security layer 2, the unique crystal surface structure of each osmium piece. The unique crystal surface is recorded by taking high-resolution photographs during the initial authentication process and an OIC is associated with that osmium piece.

Parties involved in the trade of osmium, including customs authorities, jewellers, wholesalers and private individuals, can use the Osmium Identification Code to verify the authenticity of individual osmium pieces online. Certificates can be viewed online and downloaded in Portable Document Format (PDF). Verification and access to information such as high-resolution photographs of the piece, the dimensions, weight and current price of individual osmium pieces is only possible with the individual OIC.

The OIC provides a secure method to protect and ensure authenticity for both sellers and buyers of osmium: Sellers can be assured of an accurate sale price, just as buyers are assured of the certification and authenticity of their osmium piece.

An example for an OIC is K–LM3D–T93G. The first letter refers to the article number (K refers to the large round bar), whereas the two following fields contain each a random combination of four letters and numbers which are generated during the authentication process.

Note: It is planned to develop a recognition software which makes it possible to take a photo of an osmium piece with a mobile phone and match the obtained information with the information stored in the International Osmium Database. This will enable the verification of authenticity in a straightforward and instantaneous fashion.

#3: The Osmium Identification Code (OIC) is the hallmark for osmium which makes it identifiable and guarantees its fineness and quality in the market. The OIC is associated with the unique crystal surface structure of a specific osmium piece.

7.2 Authentication and certification process

Osmium is crystallised exclusively in Switzerland. All first deliveries go to Germany, where the Osmium-Institute Germany authenticates every single piece of osmium with a certificate. Subsequently, the osmium is exported from Germany worldwide.

Authentication is critical to ensure secure and transparent transactions of crystalline osmium. The Osmium-Institute Germany is the only authority worldwide that is entitled to authenticate osmium and issue certificates because it has been granted the exclusive marketing rights for osmium from the crystallisation entity in Switzerland.

Involving different people during the crystallisation and authentication process constitutes a key element of quality assurance and control. Whenever the Osmium-Institute Germany receives crystallised osmium from Switzerland, the following steps are carried out:

Authentication

1. Take high-resolution photographs of the crystal surface structure (plan views, elevation views);
2. Allocate a unique identifier, the Osmium Identification Code (OIC), to each piece;
3. Confirm chemical purity (Os 99.9995 percent or higher) and determine present impurities, e.g. platinum;[1]
4. Measure basic geometry;
5. Weigh (four significant digits);
6. Describe the piece and its characteristics in text form (if applicable);
7. Add any specific information as requested by the customer (for specific pieces only);
8. Document the price (will be updated on a daily basis);

Certification

9. Issue an individual certificate containing the above information;
10. Store all of the above information in the International Osmium Database.

[1] 1. The chemical purity of crystallised osmium is measured and verified by the Osmium-Institute Germany and its partners. The processes used to achieve this often quickly reach their limits. The process of crystallisation is based on the fact that osmium does not allow the incorporation of other atoms into the crystal lattice during the rearrangement of the crystal structure. For this reason, the purity, which is 99.99 percent at the onset of the process, is inevitably further increased. Scanning electron microscope images clearly demonstrate that the osmium changes into an extremely high-purity state during the rearrangement of atoms. For these reasons, crystalline osmium is used today to gauge technical measurement methods and the associated analysis.

Certificates can be retrieved online from the International Osmium Database (https://www.osmium-identification-code.com), provided that the Osmium Identification Code is known.

8 Product safety

8.1 Safety Data Sheets

The Osmium-Institute Germany coordinates and oversees the preparation of Safety Data Sheets (SDS) according to the requirements of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS).

Affiliated Institutes are required to develop a SDS which complies with the requirements of the jurisdiction in which they operate. This must be done in close coordination with the Osmium-Institute Germany.

8.2 Long-term testing of harmlessness

The Osmium-Institute Germany has commissioned standardised (long-term) tests which demonstrate that crystallised osmium is safe to use and can even be worn directly on the skin, similar to other precious metals.

The official reports are available and can be provided upon request.

8.3 Fineness

EAG LABORATORIES

GDMS
ANALYTICAL REPORT

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P.O.#

Date of Analysis 21-nov.-2017
Customer ID: Os
échantillon d'Osmium

Job # F0HH8412
Sample ID: F171115022 - CB
Issued on: 22/11/2017

Element	Concentration [ppm wt]	Element	Concentration [ppm wt]
Li	< 0.005	Pd	< 0.01
Be	< 0.005	Ag	< 0.01
B	< 0.005	Cd	< 0.01
C	-	In	< 0.01
N	-	Sn	< 0.005
O	-	Sb	< 0.005
F	< 0.05	Te	< 0.005
Na	< 0.005	I	< 0.005
Mg	< 0.005	Cs	< 0.005
Al	< 0.005	Ba	< 0.005
Si	< 0.005	La	< 0.005
P	< 0.005	Ce	< 0.005
S	< 0.01	Pr	< 0.005
Cl	< 0.01	Nd	< 0.005
K	< 0.05	Sm	< 0.005
Ca	< 0.01	Eu	< 0.005
Sc	< 0.005	Gd	< 0.005
Ti	< 0.005	Tb	< 0.005
V	< 0.005	Dy	< 0.005
Cr	< 0.005	Ho	< 0.005
Mn	< 0.005	Er	< 0.005
Fe	< 0.005	Tm	< 0.005
Co	< 0.005	Yb	< 0.005
Ni	< 0.005	Lu	< 0.005
Cu	< 0.005	Hf	< 0.005
Zn	< 0.01	Ta	< 5
Ga	< 0.01	W	< 0.05
Ge	< 0.01	Re	< 0.05
As	< 0.01	Os	Matrix
Se	< 0.01	Ir	< 0.1
Br	< 0.01	Pt	< 0.1
Rb	< 0.005	Au	< 0.5
Sr	< 0.005	Hg	< 0.1
Y	< 0.005	Tl	< 0.5
Zr	< 0.005	Pb	< 0.5
Nb	< 0.005	Bi	< 0.01
Mo	< 0.005	Th	< 0.001
Ru	0.45	U	< 0.001
Rh	< 0.005		

H, C, N, O recommended by Interstitial Gas Analysis (Internally equipped)

C.BAZILLE (Analyst)

ISO 9001:2008 registered

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Approved by: _____

The measurement uncertainties are available upon request. The tests results in the report relate only to the test sample submitted to analysis.
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9 Business continuity planning

The loss of key persons represents a general risk for business continuity in companies and is of critical importance in smaller markets.

In particular through individual training, establishment of redundancies and decentralised decision-making, this risk and the potential impact on production as well as marketing and sales has been effectively mitigated by the Osmium-Institute Germany.

9.1 Production

When the crystallisation of osmium became possible, it was carried out by only one person in the laboratories in Switzerland. There was a cooperation of two scientists who had divided the tasks into process implementation and innovation. These two scientists are considered to be behind basic principles of crystallisation.

The current team has been growing and currently a total of four (4) people have been initiated into the entire production process. Each of these four individuals are able to carry out the entire process themselves without the need of any further assistance or knowledge. In the event of death or accident / damage to property, production is hence not affected.

9.2 Business development and marketing

In the past, Ingo Wolf was the only person with comprehensive knowledge about the market for crystalline osmium and the authority to adequately develop the market.

To mitigate the risk of key-person loss of Ingo Wolf, a multidisciplinary team has been built which is characterised by complementary expertise and skills and has been endowed with delegated authority to decentralise decision-making. The team today consists of eight people, has multiple redundancies and follows dual control principles in all business functions, including but not limited to those listed in section 5.

This team provides international partners with information about osmium and safeguards the supply of crystalline osmium.

Further risk mitigating steps which have been taken include:

- Virtualisation of the entire institute;
- Separation between certification, shipping and database monitoring;
- Establishment of the Osmium World Council as superordinate institution to build trust;
- Completion of “Train the Trainer” programs with all leading positions in the company;
- Joint formulation of the strategic direction to be taken by the company.

Therefore, Ingo Wolf does no longer have the initial central role which he assumed in the early days of market development, thus enabling operations to continue without significant personal intervention. However, Ingo Wolf continues to represent the Osmium-Institutes and is still actively involved in decision-making and providing advice in his role as Managing Director. In addition, due to his intricate knowledge of the industry, Ingo Wolf has an advisory function and continues to provide guidance on innovation initiatives and strategy development.

In conclusion, in the event of Ingo Wolf’s death or leaving the company, business continuity can be ensured.