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## SAFETY DATA SHEET

PRODUCT NAME: **GOLD SPONGE**

1. PRODUCT AND COMPANY IDENTIFICATION
<p><b>Identification of the preparation:</b>  <b>Product name:</b> Gold sponge      <b>Product code:</b> AU METAL  <b>Chemical name:</b> Gold                      <b>Formula:</b> Au  <b>Recommended uses:</b> Decorative coating, Dental alloy, Electronics, Industrial applications, Jewelry, Laboratory applications.  <b>Company Identification:</b>                  Impala Platinum Limited – Refineries                  Corner East Geduld Road &amp; Cowles Street                  P O Box 222, Springs 1560, South Africa                  Tel.: +27 (0)11 360 3111, Fax: +27 (0)11 360 3202  <a href="http://www.implats.co.za">www.implats.co.za</a>      jamie.welman@implats.co.za  <b>Emergency telephone no.:</b> Impala Platinum Refineries +27 (0)11 360 3777  <b>Poison Centre - Tygerberg Hospital, Belville, Cape</b> +27 (0)21 931 6129</p>
2. HAZARD IDENTIFICATION
<p><b>Low toxicity</b></p> <p><b>WARNING</b></p> <p><b>Harmful - if swallowed, - in contact with skin, - if inhaled</b>                  The product may cause adverse health effects with high-level dust generation, inhalation or prolonged skin contact.</p> <p><b>Additional Labeling:</b>                  Each container should be labeled as follows:  <b>Before use read Safety Data Sheet</b>                  If dissolved, ensure adequate enclosure or ventilation; do not breathe mists and avoid solution contact with eyes, skin and clothing – may cause sensitisation or allergic reaction                  If melted do not breathe furnace fume</p> <div style="text-align: right; margin-top: 20px;">  </div>

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**3. COMPOSITION / INFORMATION ON INGREDIENTS**

<b>Major components:</b>	<b>Typical wt %:</b>	<b>CAS #:</b> 7440-57-5
Gold	99.50-99.99%	<b>EINECS Number:</b> 231-165-9

**4. FIRST AID MEASURES**

**Inhalation:** Exposure is considered unlikely. Due to product form / nature of use, an inhalation hazard is not anticipated. Seek medical attention if irritation develops.

**Ingestion:** For advice, contact a Doctor or the Poisons Information Centre on +27-21-931-6129. Due to product form and application, ingestion is considered unlikely.

**Skin:** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Seek medical attention if irritation develops.

**Eyes:** Exposure is considered unlikely unless casing is damaged. Flush gently with running water. Seek medical attention if irritation develops.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media:** Use an extinguishing agent suitable for the surrounding fire.

**Extinguishing media not be used:** Not applicable

**Special exposure hazards:** May evolve toxic gases if strongly heated.

**Special protective equipment for fire-fighters:** None

**NOTE:** The Gold Sponge supplied by Impala Platinum is non-flammable and therefore **DOES NOT** present a fire hazard.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions:** If spilt (bulk) wear goggles and PVC or rubber gloves. Where a dust inhalation hazard exists (i.e. when used in large quantities) wear a Class P1 (particulate) respirator.

**Environmental precautions:** Not applicable.

**Methods for cleaning-up:** If spilled sweep up and reuse where possible.

**7. HANDLING AND STORAGE**

**Handling:** Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

**Storage:** Store in a cool, dry, well ventilated area, removed from oxidizing agents, acids, ammonia, ammonium hydroxide, hydrogen peroxide and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Occupational Exposure Limit:** No exposure standard(s) allocated.

**Respiratory protection:** Where an inhalation risk exists, wear: a Class P1 (Particulate) respirator. Where an inhalation risk exists, mechanical extraction ventilation is recommended.

**Hand protection:** Wear suitable gloves (cotton or leather gloves)

**Eye protection:** Wear dust-proof goggles.

**Skin protection:** Safety shoes, overalls or similar full-body work clothes should be worn and laundered daily. This protective clothing should not be worn at home.

**Personal Hygiene:** Practice good housekeeping and personal hygiene procedures. No eating, drinking or smoking in work area. Wash hands thoroughly before eating, drinking or smoking. Avoid ingestion, inhalation and skin and eye contact. Medical examinations, monitoring, record keeping and hygiene facilities are recommended.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:** Yellow Solid  
**Odour:** Odourless  
**pH:** Not applicable  
**Boiling point / boiling range:** 2857°C; 5201°F  
**Melting point / melting range:** 1064°C; 1937°F  
**Flash point:** Not applicable  
**Flammability (solid):** Non-flammable solid  
**Autoflammability:** Not applicable  
**Explosive properties:** Not applicable  
**Oxidizing properties:** Not applicable  
**Vapour pressure:** Unknown  
**Relative density:** 19.3 g.cm<sup>3</sup>  
**Solubility : - hydrosolubility:** Insoluble in water  
**liposolubility (solvent-oil):** Insoluble in solvent-oil  
**Partition coefficient (n-octanol/water):** Not applicable

**10. STABILITY AND REACTIVITY**

**Chemical Stability:** Stable under recommended conditions of storage.  
**Conditions to avoid:** Exposure to high temperatures (>1000°C), sparks, open flames and other ignition sources.  
**Materials to avoid:** Incompatible with oxidizing agents (eg. hypochlorite's), acids (eg. nitric acid), ammonia, ammonium hydroxide and hydrogen peroxide.  
**Hazardous decomposition products:** May evolve toxic gases if heated to decomposition.

**11. TOXICOLOGICAL INFORMATION**

**11.1 ACUTE TOXICITY**

**Ingestion:** Ingestion is considered unlikely due to product form. Poorly absorbed and therefore considered non toxic.

**11.2 SKIN CORROSION / IRRITATION**

**Low-irritant:** Prolonged or repeated contact may result in mild irritation, rash and dermatitis.

**11.3 SERIOUS EYE DAMAGE / IRRITATION**

**Irritant:** Exposure considered unlikely. Due to product form and nature of use, the potential for exposure is reduced, but exposure may result in eye irritation, pain and redness.

**11.4 RESPIRATORY OR SKIN SENSITISATION**

**Non-irritant:** Exposure considered unlikely. Due to product form and nature of use, an inhalation hazard is not anticipated with normal use.

**11.5 GERM CELL MUTAGENICITY**

Repeated or prolonged exposure is not known to aggravate medical condition.

**11.6 CARCINOGENICITY**

**Non-carcinogenic:** Not identified as carcinogenic

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**11.7 REPRODUCTIVE TOXICITY**

Not available.

**11.8 SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY – Single exposure**

Not available.

**11.9 SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY – Repeated exposure**

Not available.

**11.10 ASPIRATION HAZARD**

**Inhalation** : Exposure considered unlikely. Due to product form and nature of use, an inhalation hazard is not anticipated with normal use.

Note: Potential Health Effects: Skin: Skin contact with this material in solid forms is not known to be hazardous. In finely-divided form, skin contact may produce localized irritation Inhalation: Dust may respiratory tract irritation by mechanical action. No significant acute or chronic effects are known from exposure by inhalation. Ingestion: Ingestion of this material in finely-divided form may produce gastric irritation, vomiting, abdominal pain, hemorrhage, diarrhea. Long term (chronic) ingestion may produce injury to the liver, kidney, spleen, pancreas, and brain. Health Conditions Aggravated by Exposure: Pre-existing pulmonary diseases (e.g. bronchitis, emphysema) may be aggravated by inhalation of this material as fumes.

**12. ECOLOGICAL INFORMATION**

**Gold metal is not anticipated to cause adverse effects to animal or plant life if released to the environment in small quantities. The biodegradation of gold under aerobic conditions is expected to be very poor and there is no evidence to suggest it creates ecological problems when released into the environment. Since gold is insoluble, it is believed to have minimal bioaccumulation and bioavailability characteristics.**

**Gold metal may have the following effects:**

**12.1 Accumulation:**

- **Persistence:** Unknown
- **Bioaccumulation potential:** Minimal bioaccumulation and bioavailability characteristics.
- **Biomagnification:** Unknown
- **Biodegradability:** The biodegradation of gold under aerobic conditions is expected to be very poor

**12.2 Ecotoxicity:**

- **Aquatic organisms:** Unknown
- **Soil organisms:** Unknown
- **Plants and terrestrial animals:** Unknown

**12.3 Other adverse effects:**

- **Ozone depletion potential:** Does not contain ozone depleting substances
- **Photochemical ozone creation potential:** Not applicable
- **Global warming potential:** Not applicable
- **Effects on waste water treatment plants:** Unknown

**The environmental effects of Gold and its compounds have not been fully evaluated.**

**13. DISPOSAL CONSIDERATIONS**

Disposer must comply with state and local laws. This material can be metallurgically recycled by Impala Platinum, South Africa, which is a pre-authorized facility for the environmentally sound recovery of metals.

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**14. TRANSPORT INFORMATION**

**NOT REGULATED FOR TRANSPORT PURPOSES**

**Packing :** In plastic bags sealed in tins which in turn are sealed in boxes

**UN-Nr.:** Not applicable

**IMDG-Code:** Not applicable

**ICAO / IATA :** Not applicable

**RID / ADR :** Not applicable

**15. REGULATORY INFORMATION**

United States: CERCLA: Not regulated

Canada:

EU/EC Classification:

**16. OTHER INFORMATION :**

**Hazard Information References :**

16.1 Chem Alert, Gold Metal, Powder and Pieces, John Morris Scientific PTY LTD

16.2 COTOX database; <http://cfpub.epa.gov/ecotox>

16.3 Lenntech: <http://www.lenntech.com/periodic/elements/au.htm#ixzz4QLJTXBY>

16.4 Science Lab. : <http://www.sciencelab.com/msds.php?msdsId=9924183>

The buyer assumes all risks with the use and handling of the material.

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