# Angstrom Sciences

## MATERIAL SAFETY DATA SHEET

**COMPLIES WITH 29 CFR 1910.1200.**
**OSHA HAZARD COMMUNICATION RULE**

**DATE OF LAST REVISION:** 04-30-99

### CHEMICAL IDENTITY

<table>
<thead>
<tr>
<th>LABEL IDENTITY</th>
<th>GOLD PALLADIUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEMICAL NAME/SYNONYMS</td>
<td>GOLD PALLADIUM</td>
</tr>
<tr>
<td>FORMULA</td>
<td>AuPd</td>
</tr>
<tr>
<td>CHEMICAL FAMILY</td>
<td>METAL ALLOY</td>
</tr>
<tr>
<td>CAS REGISTRY NUMBER</td>
<td>Au = 7440-57-5</td>
</tr>
<tr>
<td></td>
<td>Pd = 7440-05-31</td>
</tr>
<tr>
<td>HAZARDOUS INGREDIENTS</td>
<td>NOT ESTABLISHED</td>
</tr>
</tbody>
</table>

### PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>COLOR, FORM AND ODOR</th>
<th>Silver Colored, Odorless</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOILING POINT</td>
<td>ND</td>
</tr>
<tr>
<td>DENSITY (gm/cc)</td>
<td>ND</td>
</tr>
<tr>
<td>VAPOR PRESSURE @ 20°</td>
<td>ND</td>
</tr>
<tr>
<td>% VOLATILE BY VOLUME (%)</td>
<td>ND</td>
</tr>
<tr>
<td>REACTION WITH WATER</td>
<td>ND</td>
</tr>
<tr>
<td>EVAPORATION RATE (H2O=1)</td>
<td>ND</td>
</tr>
<tr>
<td>SOLUBILITY IN WATER</td>
<td>Insoluble</td>
</tr>
<tr>
<td>MELTING POINT</td>
<td>ND</td>
</tr>
</tbody>
</table>

### FIRE AND EXPLOSION HAZARD DATA

<table>
<thead>
<tr>
<th>FLASH POINT</th>
<th>Non-flammable as a solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTOIGNITION TEMPERATURE (°C)</td>
<td>ND</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>Non-flammable</td>
</tr>
<tr>
<td>EXTINGUISHING MEDIA</td>
<td>Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.</td>
</tr>
<tr>
<td>SPECIAL FIRE FIGHTING PROCEDURES</td>
<td>No special measures required</td>
</tr>
<tr>
<td>UNUSUAL FIRE &amp; EXPLOSION HAZARDS</td>
<td>None known</td>
</tr>
</tbody>
</table>
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HEALTH HAZARD INFORMATION

TOXICITY DATA
NA

HMIS RATING:
HEALTH: na FLAMMABILITY: na REACTIVITY: na PERSONAL PROTECTION: na

ROUTES OF ENTRY
INHALATION: Yes
SKIN: Yes
INGESTION: ND

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
Individuals who may have had allergic reactions to metals or sensitivity, may encounter rash or dermatitis, if skin contact with this product occurs. Persons with impaired pulmonary functions, may incur further impairment if dust or fumes are inhaled.

EFFECTS OF OVEREXPOSURE (acute and chronic):
INHALATION: ND
DERMAL: May cause contact dermatitis.
OTHER: There is no toxicological data available for gold, but toxicity is thought to be very low.

CARCINOGENICITY: No NTP: No IARC MONOGRAPHS: No OSHA REGULATE: No

EMERGENCY FIRST AID PROCEDURES:
INGESTION Obtain medical attention at once.
INHALATION Seek medical treatment in case of complaints.
SKIN CONTACT Generally the product does not irritate the skin.
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EYE CONTACT
Rinse opened eye for several minutes under running water. If systems persist, consult a doctor.

REACTIVITY DATA

CONDITIONS CONTRIBUTING TO UNSTABILITY
None known

INCOMPATIBILITY (MATERIALS TO AVOID)
Ammonia, Oxidizing agents, Halogens, Hydrogen Peroxide.

DANGEROUS REACTIONS
Gold can form explosive compounds with ammonia, ammonium hydroxide + aqua regia, and hydrogen peroxide

HAZARDOUS POLYMERIZATION
None known

CONDITIONS TO AVOID
Decomposition will not occur if used and stored according to specifications.

SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Pick up mechanically.

WASTE DISPOSAL METHOD:
Do not allow material to be released to the environment without proper governmental permits. Consult state, local or national regulations for proper disposal. Disposal must be made according to official regulations.
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SPECIAL PROTECTIVE INFORMATION

RESPIRATORY PROTECTION
Use an appropriate NIOSH approved respirator if airborne dust concentration exceed the PEL or TLV.

LOCAL EXHAUST
Recommended, when cutting, grinding or melting or any other operation where dust or fumes are created.

PROTECTIVE GLOVES
Recommended to prevent mechanical irritation.

EYE PROTECTION
Safety glasses are recommended.

OTHER PROTECTIVE EQUIPMENT
Eye wash fountain should be readily available in areas of use or handling.
Recommended.

GENERAL:
Not established for product as whole.

EXPOSURE LIMITES:
Not established for product as whole.

SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING/STORAGE:
In solid form this material poses no special problems. Store metal in a dry area.
Do not store adjacent to acids

TRANSPORTATION REQUIREMENTS
DOT CLASS: None
UN NUMBER: None
PRODUCT RQ: None
DOT SHIPPING NAME: Not Regulated
TECHNICAL SHIPPING NAME: Metal Alloy

PRECAUTIONARY LABELING
NONE

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NA= NOT APPLICABLE
ND= NO DATA FOUND