



MATERIAL SAFETY DATA SHEET
COMPLIES WITH 29 CFR 1910.1200.
OSHA HAZARD COMMUNICATION RULE

DATE OF LAST REVISION: 04-30-99

CHEMICAL IDENTITY

| | |
|------------------------|---|
| LABEL IDENTITY | GOLD PALLADIUM |
| CHEMICAL NAME/SYNONYMS | GOLD PALLADIUM |
| FORMULA | AuPd |
| CHEMICAL FAMILY | METAL ALLOY |
| CAS REGISTRY NUMBER | Au = 7440-57-5 Pd = 7440-05-31 |
| HAZARDOUS INGREDIENTS | NOT ESTABLISHED |

PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--------------------------|---------------------------------|
| COLOR, FORM AND ODOR | Silver Colored, Odorless |
| BOILING POINT | ND |
| DENSITY (gm/cc) | ND |
| VAPOR PRESSURE @ 20° | ND |
| % VOLATILE BY VOLUME (%) | ND |
| REACTION WITH WATER | ND |
| EVAPORATION RATE (H2O=1) | ND |
| SOLUBILITY IN WATER | Insoluble |
| MELTING POINT | ND |

FIRE AND EXPLOSION HAZARD DATA

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|----------------------------------|--|
| FLASH POINT | Non-flammable as a solid |
| AUTOIGNITION TEMPERATURE (°C) | ND |
| FLAMMABILITY | Non-flammable |
| EXTINGUISHING MEDIA | Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. |
| SPECIAL FIRE FIGHTING PROCEDURES | No special measures required |
| UNUSUAL FIRE & EXPLOSION HAZARDS | None known |



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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

INHALATION

SKIN CONTACT

Obtain medical attention at once.

Seek medical treatment in case of complaints.

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 INCOMPATIBILITY (MATERIALS TO AVOID)

**None known
Ammonia, Oxidizing agents,
Halogens, Hydrogen Peroxide.**

DANGEROUS REACTIONS

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

HAZARDOUS POLYMERIZATION CONDITIONS TO AVOID

**None known
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

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|----------------------------|---|
| 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. |
| GENERAL: | Recommended. |
| 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**

THE ABOVE INFORMATION IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, SINCE DATA, SAFETY STANDARDS AND GOVERNMENT REGULATIONS ARE SUBJECT TO CHANGE THE CONDITIONS OF HANDLING AND USE, OR MISUSE ARE BEYOND OUR CONTROL, **ANGSTROM SCIENCES** MAKE NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR THE RELIANCE THEREON. USER SHOULD SATISFY HIMSELF THAT HE HAS ALL CURRENT DATA RELEVANT TO HIS PARTICULAR USE.

NA= NOT APPLICABLE

ND= NO DATA FOUND