

Material Safety Data Sheet

Identity: Gold

Formula: Au

SECTION I - GENERAL INFORMATION

Manufacturer: [Stanford Advanced Materials](#) (SAM)

The information below is believed to be accurate and represents the best information available to SAM. However, SAM makes no warranty, expressed or implied with respect to such information and assumes no liability resulting from its use.

SECTION II – INGREDIENTS/SUMMARY OF HAZARDS

CAS #	%	OSHA/PEL	ACGIH TLV
7440-57-5	99-99+%	N/A	N/A

SECTION III – PHYSICAL DATA

Physical State: Solid

Boiling Point: 2550 °C	Specific Gravity (H ₂ O=1): 19.32 g/cm ³
Melting Point: 1064 °C	Vapor Pressure (vs. air or mmHg): 1mm at 1869 °C
Evaporation Rate: N/A	Vapor Density (vs. air=1): 17.0 at 1063 °C
Solubility in water: Insoluble	Percent Volatile: N/A

Appearance and Odor: Yellow metal, odorless

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

Flash Point: N/A*Method Used:* N/A *Explosive Limits:* LEL: N/A UEL: N/A*Extinguishing Media:*

Material is non-combustible. Use suitable extinguishing agent for surrounding materials, DO NOT USE WATER to extinguish fires around operations involving molten metal due to the potential for steam explosion

Special Fire Fighting Procedures:

Firefighters must wear full face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.

Unusual Fire and Explosion Hazards:

High levels of dust or fine particles in the air may ignite or explode

SECTION V – HEALTH HAZARDS

Health Hazards (Acute and Chronic):

Inhalation:

Acute: May cause irritation to respiratory tract

Chronic: None recorded

In Emergency Procedures: Remove victim to fresh air, keep warm and quiet, and give oxygen if breathing is difficult; seek medical attention

Ingestion:

Acute: Generally non toxic

Chronic: Large amounts are harmful if ingested

In Emergency Procedures: Obtain medical attention at once

Skin:

Acute: May cause irritation and allergic reaction.

Chronic: None recorded

In Emergency Procedures: Wash affected area with mild soap and water, take care of all cuts and abrasions with standard medical care; seek medical attention if symptoms persist

Eyes:

Acute: May cause irritation.

Chronic: None recorded

In Emergency Procedures: Flush eyes with lukewarm water, lifting upper and lower eyelids for at least 15 minutes and seek medical attention

Medical Conditions Generally by Exposure: Pre-existing allergies to gold

May aggravate existing dermatitis; People with impaired pulmonary functions may acquire further impairment if fumes are inhaled

SECTION VI – REACTIVITY DATA

Stability: Stable

Conditions to Avoid (stability): None

Incompatibility: Acetylene, ammonia, acids, and strong oxidizers

Hazardous Decomposition or Byproducts: None

Hazardous Polymerization: Will not occur

Conditions to avoid (hazardous polymerization): N/A

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled:

Wear appropriate respiratory and protective equipment specified in section VIII. Isolate spill area, provide ventilation and extinguish sources of ignition. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and then place in a closed container for proper disposal. Take care not to raise dust. Do not use compressed air

Waste disposal method:

Dispose of in accordance with state, local, and federal regulations.

Hazard Label Information:

Store in cool, dry area and in tightly sealed container. Wash thoroughly after handling.

SECTION VIII - CONTROL MEASURES

Protective Equipment Summary (Hazard Label Information):

NIOSH approved respirator, impervious gloves, safety glasses, clothes to prevent skin contact.

Ventilation:

Local Exhaust: To maintain concentration at low exposure levels. Mechanical (General):

Recommended.

Work/Hygienic/Maintenance Practices:

Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

Please be advised that N/A can either mean Not Applicable or No Data Has Been Established
