

Material Safety Data Sheet

AURIUM RESEARCH U.S.A.

5855 Oberlin Dr., San Diego, CA 92121-4781

SECTION 1 - SUBSTANCE IDENTIFICATION

ALLOY NAME: AURIUM M

DESCRIPTION: Color: WHITE Type: IV

SECTION 2 - COMPOSITON/INFORMATION ON INGREDIENTS

METAL	%	SYMBOL	CAS NO	ACGIH 8 HR TLV	OSHA 8 HR PEL
PLATINUM	0.8	Pt	7440-06-4	No data	No data
PALLADIUM	56.4	Pd	7440-05-3	No data	No data
COBALT	38.8	Co	7440-48-4	0,05mg/m3	No data
GALLIUM	1.4	Ga	7440-55-3	No data	No data
TIN	1.0	Sn	7440-31-5	2 mg/m3	2 mg/m3
INDIUM	1.0	In	7440-74-6	0.1 mg/m3	0.1 mg/m3 TWA
RUTHENIUM	X	Ru	7440-18-8	No data	No data

Note: % values are in weight percent and reflect nominal composition.

Note: 'X' denotes a content of less than one percent

SECTION 3- HAZARDS IDENTIFICATION

EYES: Contact with eyes may cause severe irritation and possible eye burns.

SKIN: May cause severe irritation and possible burns.

INGESTION: May cause gastrointestinal irritation with nausea, vomiting, and diarrhea.

INHALATION: May cause irritation and burns to the respiratory tract.

NOTE: Exposure levels for elements in this alloy are listed in SECTION 2. The following health data is for specific elements:

GALLIUM May cause bone marrow depression.

INDIUM May cause fetal effects based upon animal studies. May cause lung damage and blood abnormalities. Target Organs: Blood, kidneys, liver, lungs.

RUTHENIUM The toxicological properties of this substance have not been fully investigated. May be harmful if swallowed.

SECTION 4 - FIRST AID MEASURES

EYE CONTACT : Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids.

SKIN CONTACT: Scrub skin thoroughly with soap and water.

INGESTION: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Induce vomiting. **Never give anything by mouth to an unconscious person. Get medical aid.

INHALATION: Remove affected person to fresh air and assist with additional oxygen if necessary. Get first aid if other symptoms appear.

SECTION 5 - FIREFIGHTING MEASURE

This material is fire and explosion resistant. Heating Beyond the melting range may generate fumes which are not flammable.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

GENERAL INFORMATION: Use proper personal protective equipment as described in section 8.

SECTION 7 - HANDLING AND STORAGE

Avoid inhalation of fumes while melting and dust while grinding. Wash hands thoroughly before eating or smoking to avoid ingestion.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTIONS

RESPIRATORY: Provide general ventilation and local exhaust to keep levels below the TLV stated in SECTION 2. Wear a NIOSH approved respirator for dust exceeding the TLVs.

HAND: Latex gloves are recommended while grinding, heat resistant gloves should be worn while casting and handling hot metals or molds.

EYE PROTECTION: Wear eye protection suitable to each individual operation.

OTHER: Wear apron, lab coat or other protective clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: WHITE

Odor: Not Applicable

pH: Not Applicable

Boiling Point: Not Applicable

Melting Range: 1190-1235 °C

Flash Point: Not Applicable

Flammability: Not Applicable

Autoflammability: Not Applicable

Explosive Properties: Not Applicable

Oxidizing Properties: Not Applicable
Vapor Pressure: Not Applicable
Relative Density: 9.2 g/cm³
Solubility(Water/Fat): Insoluble

SECTION 10 - STABILITY AND REACTIVITY

At ordinary and high (below the melting range) temperatures, the material oxidizes but is stable. At very high temperatures the alloy produces fumes.

SECTION 11 - TOXICOLOGICAL INFORMATION

No specific instructions.

SECTION 12 - ECOLOGICAL INFORMATION

This is an environmentally friendly material. With proper dust collecting equipment, 100% of this alloy can be recycled.

SECTION 13 - DISPOSAL CONSIDERATIONS

Whenever possible, recover dust because it has economic value.

SECTION 14 - TRANSPORT INFORMATION

No specific instructions.

SECTION 15 - REGULATORY INFORMATION

No specific instructions.

SECTION 16 - OTHER INFORMATION

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