

Material Safety Data Sheet

Aurium Research U.S.A.

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SECTION 1 - SUBSTANCE IDENTIFICATION

ALLOY NAME: AURIUM BIO 422

DESCRIPTION: Color: YELLOW Type: PFM,IV

SECTION 2 - COMPOSITON/INFORMATION ON INGREDIENTS

METAL	%	SYMBOL	CAS NO	ACGIH 8 HR TLV	OSHA 8 HR PEL
GOLD	72.1	Au	7440-57-5	Not established	Not established
PLATINUM	9.2	Pt	7440-06-4	No data	No data
SILVER	10	Ag	7440-22-4	0.01 mg/m3	0.1 mg/m3
IRIDIUM	x	Ir	7439-88-5	No data	No data
INDIUM	3.1	In	7440-74-6	0.1 mg/m3	0.1 mg/m3 TWA
COPPER	4.8	Cu	7440-50-8	0.1 mg/m3 (Fume) 1 mg/m3 (Dust)	0.2 mg/m3 (Fume) 1 mg/m3 (Dust)
ZINC	x	Zn	7440-66-6	5mg/m3	No data
TIN	x	Sn	7440-31-5	2 mg/m3	2 mg/m3

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:

SILVER Absorption of silver compounds by ingestion, inhalation or through broken skin can cause argyria, a permanent bluish-grey discoloration of the skin, conjunctiva and mucous membrains. Generalized argyria develops after 2 to 25 years of exposure. There are no systematic effects or symptoms and no physical disability. Silver is considered an experimental equivocal tumorigenic agent by RTECS criteria.

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

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: YELLOW
Odor: Not Applicable
pH: Not Applicable
Boiling Point: Not Applicable
Melting Range: 905-990 °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: 16.6 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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