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Alloys  
Attachments  
Implants  
Restorative Systems

## MATERIAL SAFETY DATA SHEET

Product: Galaxy

Description: Dental Alloy: Alloys of gold, containing palladium, suitable for facing with a fused ceramic coating

Typical Composition: Au 52% Ga 2%  
Pd 39% In 8%

For commercial reasons, the above data may not be a complete alloy composition. However all elements of significant content are reported

### SECTION II - HAZARDOUS INGREDIENTS

This alloy is not regarded as being hazardous when subjected to normal use, however users are recommended to carry out their own risk assessment on the process undertaken in the use of this material.

Users should note that occupational exposure control standards exist for some alloys' components (refer to exposure controls) and should remain aware of the need to monitor exposure if powder or fume is produced.

No toxicological data exists for gold, palladium, their alloys or salts, but they are considered to be of low acute toxicity. Alloys of gold are commonly worn in close proximity to skin as items of jewelry with little or no recorded side effects. However in extremely rare cases, allergic reactions have been known.

Due to the low content of base metals within this alloy, no systemic effects of tissue reaction is to be expected from their presence.

The alloy in powdered form may irritate the eyes and respiratory tract. Contact with the skin is unlikely to cause irritation or allergic reaction.

In the form supplied this alloy is not regarded as reactive.

### SECTION III – FIRST AID MEASURES

Due to the non-hazardous nature of the alloy in the supplied form, no specific first aid information can be given. However, in the case of any symptoms, which may relate to exposure of fine powder or dust, the following actions are advised:

Inhalation: Remove from exposure and rest in fresh air. Seek medical advice if acute.  
Ingestion: Rinse mouth with water and give water or milk to drink. Seek medical advice for large quantities.  
Eyes: Irrigate eyes with clean water or isotonic saline solution for 5 minutes. See medical advice if symptoms exist.  
Skin: Wash with soap and water.

### SECTION IV - FIRE FIGHTING MEASURES

Flash point: N/A  
Flammable limits: N/A  
Extinguishing media: N/A  
Not flammable. Use any extinguishing medium for surrounding fire.

### SECTION V – ACCIDENTAL RELEASE MEASURES

Collect up spillage for reuse or recycling

## SECTION VI – HANDLING AND STORAGE

## VI.I Handling

Any process producing fume/dust such as melting, soldering or grinding should be carried out under local exhaust ventilation or respiratory protection should be used.

## VI.II Storage

No special storage conditions are necessary.

## SECTION VII – EXPOSURE CONTROLS and PERSONAL PROTECTION

## VI.I EXPOSURE CONTROLS

No exact exposure control standards have been established for this alloy, however Health and Safety Executive standards for some component elements have been established and are available upon request. Based on this information and the relative proportions of each element, the following 8 hour exposure limits have been calculated: 20mg/m<sup>3</sup>

## VII.II Personal Protection

Ventilation and Respiratory Protection: To meet T.L.V. requirements, efficient local exhaust ventilation or approved respirator protection must be provided wherever heating, grinding or any other operation, which may cause exposure to dust or fume.

Other Protective Equipment: Gloves and/or suitable protective clothing is required to prevent excessive contact between skin and dust and to prevent contact with the metal at elevated temperatures. Face and/or eye protection is strongly recommended to prevent dust or particles entering the eyes and is regarded as essential during any operation, which results in the alloy changing form.

Work / Hygiene Practices: Avoid inhalation or ingestion. Practice good housekeeping. Avoid eating and smoking in the work area. Wash thoroughly before eating and smoking.

## SECTION VIII – PHYSICAL and CHEMICAL PROPERTIES

	Galaxy
Appearance	White
Odor	No Odor
pH	Not Applicable
Boiling Point	No Data
Melting Point	1205-1240°C
Flash Point	Not Applicable
Flammability	Not Flammable
Autoflammability	Not Applicable
Explosive Properties	Not Explosive
Oxidizing Properties	Not Oxidizing
Vapor Pressure	No Data
Solubility	Water-Insoluble
Partition Coefficient	Fat – No data

## SECTION IX – STABILITY and REACTIVITY

The alloy is supplied in a stable condition. Sterngold knows no specific reactive hazards if they are used in accordance with supplied instructions and for the purpose designed.

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## SECTION X – TOXICOLOGICAL INFORMATION

No data is available for this alloy. In the form supplied they are not classified as hazardous and do not represent any hazards.

May cause irritation from the inhalation of dust or fumes. Irritation to the eyes if in contact with dust.

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## SECTION XI – ECOLOGICAL INFORMATION

This alloy does not present ecological hazards.

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## SECTION XII – DISPOSAL

Dispose of waste by the most economic method, which may involve recovery by a refinery.

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## SECTION XIII – TRANSPORT

No restrictions

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## SECTION XIV – REGULATORY INFORMATION

EC supply – Non hazardous. No risk or safety phrases as ascribed.

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## SECTION XV – OTHER INFORMATION

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