SAFETY DATA SHEET

1. INDENTIFICATION OF SUBSTANCES / PREPARATION AND COMPANY

Product Name: Matchmate 610
Product Code: 681

Application: Dental casting alloy

Manufacturer: Leach & Dillon Dental Alloys
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2. HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture

Classification information

This product does not meet the classification criteria in (EC) N° 1272/2008 (CLP)
This product does not meet the labelling criteria stated in 67/548/EWG and 1999/45/EC

2.2. Label elements

Labelling is in accordance with (EC) No 1272/2008 (CLP Regulation). Label elements in the solid form which the product is marketed

2.3. Other hazards

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 diarrhoea.
INHALATION: May cause irritation and burns to the respiratory tract.
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 membranes. 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.
RHENIUM: The toxicological properties of this material have not been investigated. Use appropriate procedures to prevent direct contact and inhalation.
RUTHENIUM: The toxicological properties of this substance have not been fully investigated. May be harmful if swallowed.

PBT assessment: No data available

vPvB assessment: No data available

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances

This product is not a substance This is not applicable

3.2. Mixtures

Ingredients:

Metal	Symbol	CAS No.	%	EC/EG No	ACGIH 8 HR TLV	OSHA 8 HR PEL
Palladium	Pd	7440-05-3	53.6	231-115-6	No data	No data
Silver	Ag	7440-22-4	37.5	231-131-3	0.01 mg/m3	0.1 mg/m3
Ruthenium	Ru	7440-18-8	x	231-127-1	No data	No data
Zinc	Zn	7440-66-6	<1	231-175-3	5mg/m3	No data
Rhenium	Re	7440-15-5	<1	231-124-5	No data	No data
Tin	Sn	7440-31-5	8.3	231-141-8	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.

4. FIRST AID MEASURES

4.1. Description of 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.

If victim is conscious and alert, give 2-4 cupfuls of milk or 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.

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

No data available.

5. FIRE FIGHTING MEASURES

5.1. Extinguishing media

Metal fire powders, sand

5.2. Special hazards arising from the substance or mixture

Heating Beyond the melting range may generate fumes which are not flammable

5.3. Advice for fire-fighters

Wear protective clothing and use a self-contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Use proper personal protective equipment as described in section 8.

6.2 Environmental precautions
Collect contaminated materials in separate containers. Discharge according to local regulations.

6.3 Methods and material for containment and cleaning up
Avoid creating dust and pick up using mechanical means.

6.4 Reference to other sections
No data available.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling
Ensure the workspace has proper ventilation
Do not consume substances during work.
General protective and hygiene measures
Wash hands before and after breaks. Remove contaminated clothing immediately.
Do not ingest or allow to come into contact with the eyes.

7.2. Conditions for safe storage, including any incompatibilities
Keep container closed in a ventilated area

7.3. Specific end use(s)
No data available

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters
Occupational exposure limit values

8.2. Exposure controls
RESPIRATORY: Provide general ventilation and local exhaust to keep levels below the TLV stated in SECTION 3. Wear a NIOSH approved respirator for dust exceeding the TLVs.
Latex gloves are recommended while grinding, heat resistant gloves should be worn while casting and handling hot metals or moulds.
EYE PROTECTION: Wear eye protection suitable to each individual operation.
OTHER: Wear apron, lab coat or other protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance:	WHITE
Odour:	Not Applicable
pH:	Not Applicable
Boiling Point:	Not Applicable
Melting Range:	1175-1260 °C
Flash Point:	Not Applicable
Flammability:	Not Applicable
Auto flammability:	Not Applicable
Explosive Properties:	Not Applicable
Oxidizing Properties:	Not Applicable
Vapor Pressure:	Not Applicable
Solubility (Water/Fat):	Insoluble

9.2. Other information
No data available

10. STABILITY AND REACTIVITY

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

10.2. Chemical stability
Product is stable under normal storage and handling conditions. See Section 7.

10.3. Possibility of hazardous reactions
Hydrogen gas can possibly form if the product comes into contact with acid

10.4. Conditions to avoid
N/A if the product is handled according to the Instructions for Use

10.5. Incompatible materials
Acid

10.6. Hazardous decomposition products
None are known

11. TOXICOLOGY INFORMATION

11.1. Information on toxicological effects
No data is available other than the information provided in Sections 2 and 3

12. ECOLOGICAL INFORMATION

12.1. Toxicity
No data available

12.2. Persistence and degradability
No data available

12.3. Bio-accumulative potential
No data available

12.4. Mobility in soil
No data available

12.5. Results of PBT and vPvB assessment
No data available

12.6. Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Product:
Always recover all waste material and send to Department A at Leach & Dillon Dental Alloys for refining.
Packaging:
Empty container completely and dispose according to local regulations.

14. TRANSPORT INFORMATION

14.1. Transport ADR/RID/AND
This product is not subject to ADR/RID/AND regulations

14.2. Transport IMDG
This product is not subject to IMDG regulations

14.3. Transport ICAO-TI / IATA
This product is not subject to ICAO-Ti / IATA regulations

14.4. Other information
No data available

14.5. Environmental hazards
No data is available other than the information provided in Sections 2 and 3
This product is not subject to ICAO-Ti / IATA regulations

14.6. Special precautions for user
None

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Germany:
Wassergefährdungsklasse WGK (VwVwS): WGK-1 (self-assessed)

15.2. Chemical Safety Assessment
No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

16. FURTHER INFORMATION

16.1. Training advice
In addition to health, safety and environmental training programs for their workers, companies must ensure that workers read, understand and apply the requirements of this SDS.

16.2. Disclaimer
The information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof. However, Leach & Dillon Dental Alloys makes no representations as to the completeness of accuracy thereof and information is supplied upon the condition that the persons receiving the above material will make their own determination as to its suitability for their purposes prior to use. In no event will Leach & Dillon Dental Alloys be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. No representations or warranties, either expressed or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers.