Safety Data Sheet

Revision: 6/13/2018

Section 1: Identification

1.1 **Product Identifier**
Trade Name: Stern 615 Fine Solder **Description**: Solder **Part Number**: 1246201

1.2 **Recommended Use**:
Dental solder for the preparation of dental appliances.
For professional use only

1.3 **Supplier**:
Sterngold Dental LLC, 23 Frank Mossberg Drive, Attleboro, MA. USA
Tel: 800-243-9942 Fax: 508-226-7528 www.sterngold.com
Emergency telephone number: 508-226-5660

Section 2: Hazard(s) Identification

2.1 **Classification**: Not applicable.

2.2 **Label elements**
Hazard pictograms: Not applicable
Signal word: Not applicable
Additional information: Label elements are not required for dental solders if they are handled and applied according to the intended use. In this case there is no risk neither for the human health nor for the environment.
Hazard statements: Not applicable.
Precautionary statements: Not applicable.
Hazardous substances for labelling: Not applicable.

Section 3: Composition/Information on Ingredients

3.1 **Substances**
This product is a mixture.

3.2 **Mixtures**
Characterization: Alloy based on precious metals with additional common metals.

Composition
Au (Gold) 61.50 % (CAS 7440-57-5) (ACGIH 8 HR TLV and OSHA 8 HR PEL not established)
Ag (Silver) 17.50% (CAS 7440-22-4), ACGIH 8 HR TLV 0.01 mg/m^3, OSHA 8 HR PEL 0.1mg/m^3
Cu (Copper) 14.44% (CAS 7440-50-8), ACGIH 8 HR TLV 0.1mg/m^3 (Fume) 1 mg/m^3 (Dust),

OSHA 8 HR PEL 0.2 mg/m^3 (Fume) 1 mg/m^3 (Dust)
Zn (Zinc) 5.00% (CAS 7440-66-6), ACGIH 8 HR TLV 5 mg/m^3, OSHA 8 HR PEL No data
Sn (Tin) 1.50% (CAS 7440-31-5), ACGIH 8 HR TLV 2 mg/m^3, OSHA 8 HR PEL 2 mg/m^3
Ir (Iridium) <1% (CAS 7439-88-5), (ACGIH 8 HR TLV and OSHA 8 HR PEL no data)
B (Boron) <1% (CAS 7440-42-8) (ACGIH 8 HR TLV and OSHA 8 HR PEL not established)

Additional Information

All contents in % are by weight and reflect nominal composition.

SILVER	Absorption of silver compounds by ingestion, inhalation or through broken skin can cause argyria, a permanent bluish-grey discoloration of the skin, conjuctiva 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.
BORON	Boron is a cumulative weak poison. Causes depression of the circulation, persistent vomiting, diarrhea, followed by profound shock and coma. Temperature is subnormal and a scarletina-form rash may appear when much is ingested (SAX)

Section 4: First-Aid Measures

4.1 **Description of first aid measures**

General notes: Remove contaminated clothing immediately.

Inhalation: Remove affected person to fresh air and assist with additional oxygen if necessary.
Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids, then consult a physician.
Skin Contact: The product is not irritating to skin; cool sufficiently with water after burns caused by contact with the molten alloy.
Ingestion: Seek medical advice immediately.

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

No special effects known.

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

In case of any health disorder get medical advice; present label and safety data sheet for this product.

Section 5: Fire-Fighting Measures

5.1 **Extinguishing media**

The product is not combustible; the extinguishing media should be adapted to the environment; never apply water on molten material.

5.2 **Special hazards arising from the substance or mixture**

No special hazards known.

5.3 **Advice for firefighters**

No special advice.

Section 6: Accidental Release Measures

6.1 **Personal precautions, protective equipment and emergency procedures**
No special measures required.

6.2 **Environmental precautions**
No special measures required.

6.3 **Methods and material for containment and cleaning up**
Pick up mechanically and dispose of according to local regulations.

6.4 **Reference to other sections**
See also sec. 7 and 8 for precautions and sec. 13 for disposal.

Section 7: Handling and Storage

7.1 **Precautions for safe handling**
Take all precautions that are normal within the dental laboratory, such as, avoid inhalation of fumes while melting and dust while grinding. Wash hands before eating or drinking to avoid ingestion.

7.2 **Conditions for safe storage, including any incompatibilities**
No special conditions

7.3 **Specific end use(s)**
See instructions for use.

Section 8: Exposure Controls/Personal Protection

8.1 **Exposure controls**

Appropriate engineering controls
Provide general ventilation and local exhaust to keep levels below the TLVs stated in Section 3

Personal protective equipment
When dental alloys are thermally or mechanically treated, precaution is needed to avoid burns, inhalation of dust and vapors as well as mechanical eye irritation due to dust.

Respiratory protection: Wear a NIOSH approved respirator for dust exceeding the TLVs.

Eye protection: Wear eye protection suitable to each operation.

Hand protection: Wear heat protective gloves while casting and handling hot metals and molds. Latex or Nitrile gloves are recommended while grinding.

Skin protection: Wear conventional laboratory apron, lab coat, or other protective clothing.

Hygiene measures
Observe hygiene measures normal within dental laboratories.

Environmental Exposure Controls

See sec. 13 for disposal.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical State: Solid.

Safety relevant data

Appearance:	YELLOW
Odor:	Not Applicable
pH:	Not Applicable
Boiling Point:	Not Applicable
Melting Range:	740-805 °C
Flash Point:	Not Applicable
Flammability:	Not Applicable
Autoflammability:	Not Applicable
Explosive Properties:	Not Applicable
Oxidizing Properties:	Not Applicable
Vapor Pressure:	Not Applicable
Solubility(Water/Fat):	Insoluble

9.2 No other safety relevant information know.

Section 10: Stability and Reactivity

10.1 **Reactivity**
The product will not react with other substances of properly stored and handled.

10.2 **Chemical Stability**
The product is stable if properly stored and handled.

10.3 **Possibility of hazardous reactions**
Special hazards are not to be expected, if the product is properly stored and handled.

10.4 **Conditions to avoid**
Keep away from oxidizing acids. The product will oxidize but is stable.

10.5 **Incompatible materials**
No special incompatibilities know.

10.6 **Hazardous decomposition products**
No decomposition to be expected under normal conditions.

Section 11: Toxicological Information

11.1 **Information on toxicological effects**

Acute toxicity

Skin corrosion/irritation: None.

Serious eye damage/irritation: Dust from mechanical treatment may lead to eye irritation.

Respiratory of skin sensitization: Dust and vapors from mechanical or thermal treatment may lead to respiratory irritation.

Germ cell mutagenicity: Classification criteria are not given according to known data.

Carcinogenicity: Classification criteria are not given according to known data.

Reproductive toxicity: Classification criteria are not given according to known data.

STOT-single exposure: Classification criteria are not given according to known data.

STOT-repeated exposure: Classification criteria are not given according to known data.

Aspiration hazard: Classification criteria are not given according to known data.

Section 12: Ecological Information* (non-mandatory)

12.1 **Toxicity**

Water toxicity: No further data available.

12.2 **Persistence and degradability**

No further data available. The product is not easily biodegradable.

12.3 **Bioaccumulative potential**

No further data available.

12.4 **Mobility in soil**

No further data available.

12.5 **Results of PBT and vPvB assessment**

Criteria for the classification as PBT or vPvB are not met.

12.6 **Other adverse effects**

No further data available.

Section 13: Disposal Considerations* (non-mandatory)

13.1 **Waste treatment methods**

Recommendation: Dispose of product according to local waster regulation. Return to the manufacturer of distributor is recommended for the recycling of precious metals.

Section 14: Transport Information* (non-mandatory)

Section 15: Regulatory Information* (non-mandatory)

Section 16: Other Information

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,STERNGOLD DENTAL, LLC. 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 there own determination as to its suitability for their purposes prior to use. In no event will "STERNGOLD DENTAL, LLC." 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.

This SDS was prepared 6/13/2018

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15(29 CFR 1910.1200(g)(2)).