## 1 Identification

- **Product identifier**
  - **Trade name:** *615 Fine Solder*

- **Relevant identified uses of the substance or mixture and uses advised against**
  - No further relevant information available.

- **Application of the substance / the mixture**
  - Manufacture of dental prosthesis

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    - Ivoclar Vivadent Inc.
      - 175 Pineview Drive, Amherst, N.Y. 14228
      - USA
      - Tel. +1 800 533 6825
      - Fax +1 716 691 2285
    - Ivoclar Vivadent Inc.
      - 1-6600 Dixie Road
      - Mississauga, Ontario
      - L5T 2Y2
      - Canada
      - Phone: +1 905 670 8499
      - Fax: +1 905 670 3102

- **Information department:** Quality Assurance / Regulatory Affairs

- **Emergency telephone number:**
  - 24 Hour Emergency Assistance:
    - Emergency-Call USA - Infotrac: 1-800-535-5053
    - Emergency-Call Canada - Canutec: 1-613-996-6666

  - General SDS Assistance:
    - US: 1-800-533-6825
    - Canada: 1-800-263-8182

## 2 Hazard(s) identification

- **Classification of the substance or mixture**
  - The product is not classified according to the Globally Harmonized System (GHS).

- **Label elements**
  - **GHS label elements** Void
  - **Hazard pictograms** Void
  - **Signal word** Void
  - **Hazard statements** Void
  - **Additional information:**
    - Alloys do not require a label, providing they do not present a hazard to human health by inhalation, ingestion or contact with skin or to the aquatic environment in the form in which they are placed on the market.

- **Classification system**
  - **NFPA ratings (scale 0 - 4)**
    - Health = 0
    - Fire = 0
    - Reactivity = 0

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Trade name: 615 Fine Solder

- HMIS-ratings (scale 0 - 4)
  - HEALTH: Health = 0
  - FIRE: Fire = 0
  - REACTIVITY: Reactivity = 0

- Other hazards
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Dental alloy

- Dangerous components:
  - 7440-50-8 copper 10-<25%
  - 7440-22-4 silver 10-<25%
  - 7440-74-6 indium 2.5-<10%
  - 7440-66-6 zinc powder -zinc dust (stabilized) 0.25-<1%

4 First-aid measures

- Description of first aid measures
- General information: No special measures required.
- After inhalation:
  - Grinding dust: Supply fresh air; consult doctor in case of complaints.
  - In case of unconsciousness place patient stably in side position for transportation.
- After skin contact:
  - After contact with the molten product, cool rapidly with cold water.
  - If skin irritation continues, consult a doctor.
- After eye contact:
  - Grinding dust: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - Mechanical effects only.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
  - Suitable extinguishing agents: The product is not flammable.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
  - Protective equipment: Do not inhale explosion gases or combustion gases.
6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions:
  - No special measures required.
  - Do not allow to enter sewers/surface or ground water.
- Methods and material for containment and cleaning up: Pick up mechanically.
- Reference to other sections
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

7 Handling and storage

- Handling:
  - Precautions for safe handling
    - Extractors are required on all machines used for thermal processing or splinter removal processes.
  - Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles: No special requirements.
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions: None.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
  - Components with limit values that require monitoring at the workplace:
    - 7440-50-8 copper
      - PEL Long-term value: 1* 0.1** mg/m³ as Cu *dusts and mists **fume
      - REL Long-term value: 1* 0.1** mg/m³ as Cu *dusts and mists **fume
      - TLV Long-term value: 1* 0.2** mg/m³ *dusts and mists; **fume; as Cu
    - 7440-22-4 silver
      - PEL Long-term value: 0.01 mg/m³
      - REL Long-term value: 0.01 mg/m³
      - TLV Long-term value: 0.1 mg/m³ metal: dust and fume
    - 7440-74-6 indium
      - REL Long-term value: 0.1 mg/m³ as In
      - TLV Long-term value: 0.1 mg/m³ as In
- Additional information: The lists that were valid during the creation were used as basis.
Trade name: **615 Fine Solder**

- **Exposure controls**
- **Personal protective equipment:**
  - **General protective and hygienic measures:**
    - Usual hygienic measures for dental practice.
    - Wash hands before breaks and at the end of work.
    - Keep away from foodstuffs, beverages and feed.
  - **Breathing equipment:** Use respiratory protective device against the effects of fumes/dust/aerosol.
  - **Protection of hands:**
    - Protective gloves should always be worn during mechanical and thermal processing.
    - After use of gloves apply skin-cleaning agents and skin cosmetics.
  - **Material of gloves**
    - Mechanical processing:
      - Leather gloves
      - Strong gloves
    - Thermal processing:
      - Heat protection gloves
  - **Penetration time of glove material**
    - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
  - **Eye protection:**
    - Always wear safety goggles during mechanical processing (grinding, sawing /cutting, drilling, milling).

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
  - **Appearance:**
    - **Form:** Solid
    - **Color:** Gold colored
    - **Odor:** Odorless
    - **Odour threshold:** Not determined.
  - **pH-value:** Not applicable.

- **Change in condition**
  - **Melting point/Melting range:** 690 - 775 °C (1274 - 1427 °F)
  - **Boiling point/Boiling range:** Undetermined.

- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**
  - **Lower:** Not determined.
  - **Upper:** Not determined.

- **Vapor pressure:** Not applicable.

- **Density:** Not determined.
- **Relative density** Not determined.
- **Vapour density** Not applicable.
- **Evaporation rate** Not applicable.
10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability: Stable under normal handling and storage conditions.
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: None under normal conditions of storage and use.

11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
  - Primary irritant effect:
    - on the skin: No irritant effect.
  - on the eye: Mechanical effects only.
  - Sensitization: No sensitizing effects known.
  - Additional toxicological information:
    Fumes or dusts generated from cutting or grinding operations may cause respiratory irritation.
- Carcinogenic categories
  - NTP (National Toxicology Program)
    None of the ingredients is listed.
  - OSHA-Ca (Occupational Safety & Health Administration)
    None of the ingredients is listed.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behavior in environmental systems:
    - Bioaccumulative potential: No further relevant information available.
    - Mobility in soil: No further relevant information available.
  - Additional ecological information:
    - General notes:
      Water hazard class 1 (Self-assessment): slightly hazardous for water
      Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
    - Results of PBT and vPvB assessment
      PBT: Not applicable.

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13 Disposal considerations

- Waste treatment methods
  - Recommendation: Take to an approved landfill or a waste incineration plant, under conditions approved by the local authority.
  - Uncleaned packagings:
    - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, ADR, ADN, IMDG, IATA Void
- UN proper shipping name
  - DOT, ADR, ADN, IMDG, IATA Void
- Transport hazard class(es)
  - DOT, ADR, ADN, IMDG, IATA
    - Class Void
- Packing group
  - DOT, ADR, IMDG, IATA Void
- Environmental hazards:
  - Not applicable.
- Marine pollutant:
  - Yes (DOT)
- Special precautions for user
  - Not applicable.
- Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
  - Not applicable.
- Transport/Additional information:
  - Product is not classified as a dangerous good for transport (ADR, IMDG, IATA).
- UN "Model Regulation": -

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Sara
  - Section 355 (extremely hazardous substances):
    - None of the ingredients is listed.
  - Section 313 (Specific toxic chemical listings):
    - 7440-50-8 copper
    - 7440-22-4 silver
  - TSCA (Toxic Substances Control Act):
    - 7440-50-8 copper
    - 7440-22-4 silver
Trade name: 615 Fine Solder

7440-74-6 indium

- Proposition 65
- Chemicals known to cause cancer:
  None of the ingredients is listed.
- Chemicals known to cause reproductive toxicity for females:
  None of the ingredients is listed.
- Chemicals known to cause reproductive toxicity for males:
  None of the ingredients is listed.
- Chemicals known to cause developmental toxicity:
  None of the ingredients is listed.

- Carcinogenic categories
- EPA (Environmental Protection Agency)
  7440-50-8 copper D
  7440-22-4 silver D
  7440-66-6 zinc powder -zinc dust (stabilized) II
- TLV (Threshold Limit Value established by ACGIH)
  None of the ingredients is listed.
- NIOSH-Ca (National Institute for Occupational Safety and Health)
  None of the ingredients is listed.
- GHS label elements Void
- Hazard pictograms Void
- Signal word Void
- Hazard statements Void

- Other regulations, limitations and prohibitive regulations
  The product is a medical device according to the Directive 93/42/EEC.
  This product is classified as a medical device under US and Canadian regulations and has been reviewed by the US Food and Drug Administration and Health Canada.

* Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Date of preparation / last revision 06/23/2015 / 6
- Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
- * Data compared to the previous version altered.