1 Identification

- **Product identifier**
- **Trade name:** X-L
- **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 prothesis
- **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

(Contd. on page 2)
Trade name: X-L

40.1.5 · HMIS-ratings (scale 0 - 4)

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FIRE</th>
<th>REACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health = 0</td>
<td>Fire = 0</td>
<td>Reactivity = 0</td>
</tr>
</tbody>
</table>

· 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:

<table>
<thead>
<tr>
<th>Component</th>
<th>Composition</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-22-4</td>
<td>silver</td>
<td>25-50%</td>
</tr>
<tr>
<td>7440-50-8</td>
<td>copper</td>
<td>2.5-&lt;10%</td>
</tr>
<tr>
<td>7440-05-3</td>
<td>palladium</td>
<td>2.5-&lt;10%</td>
</tr>
</tbody>
</table>

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.
  · After eye contact:
    · Grinding dust: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
    · Mechanical effects only.
  · After swallowing: Seek medical treatment.

· 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.

· Methods and material for containment and cleaning up: Pick up mechanically.
Safety Data Sheet
acc. to OSHA HCS

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(Contd. of page 2)

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.

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### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:** Solid
  - **Color:** Yellow
  - **Odor:** Odorless
  - **Odour threshold:** Not determined.
- **pH-value:** Not applicable.
- **Change in condition**
  - **Melting point/Melting range:** 890 – 950 °C (1634 – 1742 °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 at 20 °C (68 °F):** 14 g/cm³ (116.83 lbs/gal)
- **Relative density**
  - **Not determined.**
- **Vapour density**
  - **Not applicable.**
- **Evaporation rate**
  - **Not applicable.**
- **Solubility in / Miscibility with Water:** Insoluble.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - **Dynamic:** Not applicable.
  - **Kinematic:** Not applicable.
- **Solvent content:**
  - **Solids content:** 100 %
  - **Other information**
    - No further relevant information available.

### 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.

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**Safety Data Sheet**

**acc. to OSHA HCS**

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Reviewed on 05/21/2015  
Version number 5

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**Trade name:** X-L

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- **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.

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**11 Toxicological information**

- **Information on toxicological effects**
  - **Acute toxicity:**
  - **Primary irritant effect:**
    - **on the skin:** No irritant effect.
    - **on the eye:** No irritating effect.
  - **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.

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**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:** Generally not hazardous for water
    - **Results of PBT and vPvB assessment**
      - **PBT:** Not applicable.
      - **vPvB:** Not applicable.
    - **Other adverse effects** No further relevant information available.

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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.

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**14 Transport information**

- **UN-Number**
- **DOT**
  NA3077

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Trade name: X-L

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):
      - 7440-22-4 silver
      - 7440-50-8 copper
    - TSCA (Toxic Substances Control Act):
      - 7440-57-5 Gold
      - 7440-22-4 silver
      - 7440-50-8 copper
      - 7440-06-4 platinum
      - 7440-74-6 indium
      - 7439-88-5 iridium
  - 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.
40.1.5

· 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)
    7440-22-4 silver D
    7440-50-8 copper D

  · 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

· National regulations:

  · 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 / 4

· 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.