1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
  - **Trade name:** Academy Gold XH

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

- **Application of the substance / the preparation**
  - 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 - Inforpac: 1-800-535-5053
    - Emergency-Call Canada - Canutec: 1-613-996-6666

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

2 Hazards identification

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

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.

- **Information concerning particular hazards for human and environment:**
  - Avoid breathing of grinding dust and vapours. Melted material may cause burns.

- **Classification system:**
  - The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **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.
3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Dental alloy
- **Dangerous components:**
  - 7440-22-4 silver 10-<25%
  - 7440-50-8 copper 10-10%
  - 7440-06-4 platinum 1-<10%
  - 7440-31-5 tin 1-<2.5%

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 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** The product is not flammable.
- **Special hazards arising from the substance or mixture** No further relevant information available.
Trade name: Academy Gold XH

- 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.
- 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 Ensure good ventilation/exhaustion at the workplace.
  - 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

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL</th>
<th>REL</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-22-4 silver</td>
<td>0.01 mg/m³</td>
<td>0.01 mg/m³</td>
<td>0.1 mg/m³</td>
</tr>
<tr>
<td></td>
<td>metal and soluble compounds (as Ag)</td>
<td></td>
<td>metal: dust and fume</td>
</tr>
<tr>
<td>7440-50-8 copper</td>
<td>1* 0.1** mg/m³</td>
<td>1* 0.1** mg/m³</td>
<td>1* 0.2** mg/m³</td>
</tr>
<tr>
<td></td>
<td>as Cu *dusts and mists **fume</td>
<td>as Cu *dusts and mists **fume</td>
<td>*dusts and mists; **fume; as Cu</td>
</tr>
<tr>
<td>7440-06-4 platinum</td>
<td>0.002 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>soluble salts, as Pt</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Trade name: Academy Gold XH

REL () 1* 0.002** mg/m³
*metal **soluble salts, as Pt
TLV () 1* 0.002** mg/m³
*metal **soluble salts, as Pt

7440-31-5 tin

PEL () 2 mg/m³
metal
REL () 2 mg/m³
TLV () 2 mg/m³
metal

- Additional information: The lists that were valid during the creation were used as basis.

- Exposure controls
  - Personal protective equipment:
    - General protective and hygienic measures: Usual hygienic measures for dental practice.
    - 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 breakthrough 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: Yellow
    - Odor: Odorless
    - Odour threshold: Not determined.
    - pH-value: Not applicable.
  - Change in condition
    - Melting point/Melting range: 860 – 925 °C (1580 – 1697 °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.

(Contd. on page 5)
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: 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.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
Trade name: Academy Gold XH

- 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.

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: NA3077
- DOT: Void
- ADR, ADN, IMDG, IATA: Void
- UN proper shipping name: Void
- ADR, ADN, IMDG, IATA: Void
- Transport hazard class(es):
  - DOT: 9 Miscellaneous dangerous substances and articles.
  - Class: 9
- ADR, ADN, IMDG, IATA: Void
- Class: Void
- Packing group:
  - DOT: III
  - ADR, IMDG, IATA: Void
- Environmental hazards:
  - Marine pollutant: No
- Special precautions for user: Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.
- 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):
    7440-22-4 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.

  · 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.

· OSHA-Ca (Occupational Safety & Health Administration)
  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 EC-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.
### 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.

**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
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)