1 Identification

- **Product identifier**
- **Trade name: IS-85**
  
- **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**
  Ox. Sol. 2 H272 May intensify fire; oxidizer.
  Skin Corr. 1C H314 Causes severe skin burns and eye damage.
  Eye Dam. 1 H318 Causes serious eye damage.

- **Label elements**
  **GHS label elements**
  The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**
  ![GHS03](https://example.com/ghs03.png) ![GHS05](https://example.com/ghs05.png)

- **Signal word**
  **Danger**

- **Hazard-determining components of labeling:**
  gallium

- **Hazard statements**
  May intensify fire; oxidizer.
Trade name: IS-85

Causes severe skin burns and eye damage.

- **Precautionary statements**
  - Keep away from heat.
  - Take any precaution to avoid mixing with combustibles.
  - Wear protective gloves / eye protection / face protection.
  - Do not breathe dusts or mists.
  - Keep/Store away from clothing/combustible materials.
  - Wash thoroughly after handling.
  - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - Immediately call a poison center/doctor.
  - Specific treatment (see on this label).
  - In case of fire: Use for extinction: CO2, powder or water spray.

- **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 = 1
    Fire = 3
    Reactivity = 0
    ```
  - **HMIS-ratings (scale 0 - 4)**
    ```
    Health = 1
    Fire = 3
    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:**
    - 7440-05-3 palladium 50-100%
    - 7440-55-3 gallium 2.5-<10%
    - 7440-74-6 indium 2.5-<10%
    - 7440-31-5 tin 2.5-<10%

(Contd. of page 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.
  - **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.
- **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.
Trade name: IS-85

- 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>Components with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-74-6 indium</td>
</tr>
<tr>
<td>REL Long-term value: 0.1 mg/m³ as In</td>
</tr>
<tr>
<td>TLV Long-term value: 0.1 mg/m³ as In</td>
</tr>
<tr>
<td>7440-31-5 tin</td>
</tr>
<tr>
<td>PEL Long-term value: 2 mg/m³ metal</td>
</tr>
<tr>
<td>REL Long-term value: 2 mg/m³ metal</td>
</tr>
<tr>
<td>TLV Long-term value: 2 mg/m³ metal</td>
</tr>
<tr>
<td>7440-22-4 silver</td>
</tr>
<tr>
<td>PEL Long-term value: 0.01 mg/m³ metal</td>
</tr>
<tr>
<td>REL Long-term value: 0.01 mg/m³ metal</td>
</tr>
<tr>
<td>TLV Long-term value: 0.1 mg/m³ metal: dust and fume</td>
</tr>
</tbody>
</table>

- 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 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
40.1.5

- **Color:** White
- **Odor:** Odorless
- **Odour threshold:** Not determined.
- **pH-value:** Not applicable.
- **Change in condition**
  - **Melting point/Melting range:** 1165–1335 °C (2129–2435 °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):** 11.4 g/cm³ (95.133 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.
- **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.
Trade name: IS-85

- 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: 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
  - DOT NA3077
- ADR, ADN, IMDG, IATA Void

- UN proper shipping name
  - ADR, ADN, IMDG, IATA Void

- Transport hazard class(es)
  - DOT
    - Class 9 Miscellaneous dangerous substances and articles
    - Label 9
  - ADR, ADN, IMDG, IATA
    - Class Void

- Packing group
  - DOT III
### 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.
Trade name: IS-85

- NIOSH-Ca (National Institute for Occupational Safety and Health)

  None of the ingredients is listed.

- GHS label elements

  The product is classified and labeled according to the Globally Harmonized System (GHS).

- Hazard pictograms

  [Image of pictograms GHS03 and GHS05]

  - Signal word Danger

  - Hazard-determining components of labeling:
    - gallium

  - Hazard statements
    - May intensify fire; oxidizer.
    - Causes severe skin burns and eye damage.

  - Precautionary statements
    - Keep away from heat.
    - Take any precaution to avoid mixing with combustibles.
    - Wear protective gloves / eye protection / face protection.
    - Wear eye protection / face protection.
    - Do not breathe dusts or mists.
    - Keep/Store away from clothing/combustible materials.
    - Wash thoroughly after handling.
    - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
    - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
    - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
    - Immediately call a poison center/doctor.
    - Specific treatment (see on this label).
    - If swallowed: Rinse mouth. Do NOT induce vomiting.
    - Wash contaminated clothing before reuse.
    - In case of fire: Use for extinction: CO2, powder or water spray.
    - Store locked up.
    - Dispose of contents/container in accordance with local/regional/national/international regulations.

- 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 / 5

  - 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
Safety Data Sheet
acc. to OSHA HCS

Trade name: IS-85

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)
Ox. Sol. 2: Oxidising Solids, Hazard Category 2
Skin Corr. 1C: Skin corrosion/irritation, Hazard Category 1C
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

* Data compared to the previous version altered.