1 Identification

· Product identifier
· Trade name: **W-3**
· 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.
· Label elements
  · GHS label elements
    The product is classified and labeled according to the Globally Harmonized System (GHS).
· Hazard pictograms
  
  GHS03
· Signal word Danger
· Hazard statements
  May intensify fire; oxidizer.
· Precautionary statements
  Keep away from heat.
  Take any precaution to avoid mixing with combustibles.
  Wear protective gloves / eye protection / face protection.
  Keep/Store away from clothing/combustible materials.

(Contd. on page 2)
Trade name: W-3

In case of fire: Use for extinction: CO2, powder or water spray.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- 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
  - HMIS-ratings (scale 0 - 4)
    - Health = 0
    - Fire = 0
    - 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

<table>
<thead>
<tr>
<th>Dangerous components:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-05-3 palladium</td>
<td>25-50%</td>
</tr>
<tr>
<td>7440-74-6 indium</td>
<td>10-&lt;25%</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.
Trade name: W-3

(Contd. of page 2)

- 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.
- 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:
  7440-74-6 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.
- 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:
### 9 Physical and chemical properties

#### General Information

**Appearance:**
- *Form:* Solid
- *Color:* White
- *Odor:* Odorless
- *Odour threshold:* Not determined.
- *pH-value:* Not applicable.

#### Change in condition

- *Melting point/Melting range:* 1235–1300 °C (2255–2372 °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): 13.8 g/cm³ (115.161 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.
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.

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
### Trade name: W-3

| · | ADR, ADN, IMDG, IATA | Void |
| · | UN proper shipping name | Void |
| · | ADR, ADN, IMDG, IATA | Void |

#### Transport hazard class(es)

| · | DOT Class | 9 Miscellaneous dangerous substances and articles |
| · | Label | 9 |

| · | ADR, ADN, IMDG, IATA | Void |
| · | Class | 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 |
| · | 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): |
| | 7440-22-4 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. |

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

  GHS03

- Signal word Danger

- Hazard statements
  May intensify fire; oxidizer.

- Precautionary statements
  Keep away from heat.
  Take any precaution to avoid mixing with combustibles.
  Wear protective gloves / eye protection / face protection.
  Keep/Store away from clothing/combustible materials.
  In case of fire: Use for extinction: CO2, powder or water spray.
  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 / 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
Trade name: W-3

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

* Data compared to the previous version altered.