**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

- **1.1 Product identifier**
  - Trade name: HGPKF 1015 Y

- **1.2 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
    - Dental alloy

- **1.3 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
  - Further information obtainable from:
    - Ivoclar Vivadent AG, FL-9494 Schaan, Liechtenstein
    - Regulatory Affairs
    - sds@ivoclarvivadent.com
  - **1.4 Emergency telephone number:** +423 / 235 33 13 (Ivoclar Vivadent AG, FL-9494 Schaan, Liechtenstein)

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
  - Classification according to Regulation (EC) No 1272/2008
    - Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- **2.2 Label elements**
  - Labelling according to Regulation (EC) No 1272/2008
    - The product is classified and labelled according to the CLP regulation.
  - Hazard pictograms Void
  - Signal word Void
  - Hazard statements
    - H412 Harmful to aquatic life with long lasting effects.
  - Precautionary statements
    - P273 Avoid release to the environment.
    - P501 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.

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

**SECTION 3: Composition/information on ingredients**

- **3.2 Chemical characterisation: Mixtures**
  - Description: Dental alloy
Trade name: HGPKF 1015 Y

**Dangerous components:**

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>Substance with a Community workplace exposure limit</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-22-4</td>
<td>231-131-3</td>
<td>silver</td>
<td>25-50%</td>
</tr>
<tr>
<td>7440-06-4</td>
<td>231-116-1</td>
<td>platinum Ox. Sol. 2, H272</td>
<td>1-&lt;2.5%</td>
</tr>
<tr>
<td>7440-66-6</td>
<td>231-175-3</td>
<td>zinc powder -zinc dust (stabilized) Aquatic Acute 1, H400; Aquatic Chronic 1, H410</td>
<td>0.3-&lt;1%</td>
</tr>
</tbody>
</table>

**Additional information:** For the wording of the listed risk phrases refer to section 16.

## SECTION 4: First aid measures

### 4.1 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.

**After swallowing:** Seek medical treatment.

### 4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.

### 4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media
Suitable extinguishing agents: The product is not flammable.

### 5.2 Special hazards arising from the substance or mixture
No further relevant information available.

### 5.3 Advice for firefighters
Protective equipment: Do not inhale explosion gases or combustion gases.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures
Not required.

### 6.2 Environmental precautions:
No special measures required.
Do not allow to enter sewers/ surface or ground water.

### 6.3 Methods and material for containment and cleaning up:
Pick up mechanically.

### 6.4 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.
SECTION 7: Handling and storage

7.1 Precautions for safe handling
Extractors are required on all machines used for thermal processing or splinter removal processes.

7.2 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.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>WEL Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-22-4 silver</td>
<td>0.1 mg/m³</td>
</tr>
<tr>
<td>7440-06-4 platinum</td>
<td>5 mg/m³</td>
</tr>
</tbody>
</table>

Additional information: The lists valid during the making were used as basis.

8.2 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.
- Respiratory protection: 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 material 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).
SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
  - General Information
    - Appearance:
      - Form: Solid
      - Colour: Gold coloured
    - Odour: Odourless
    - Odour threshold: Not determined.
  - pH-value: Not applicable.
  - Change in condition
    - Melting point/Melting range: 975 - 1035 °C
    - Boiling point/Boiling range: Undetermined.
  - Flash point: Not applicable.
  - Flammability (solid, gaseous): Not determined.
  - Self-igniting: Product is not self-igniting.
  - Danger of explosion: Product does not present an explosion hazard.
  - Explosion limits:
    - Lower: Not determined.
    - Upper: Not determined.
  - Vapour pressure: Not applicable.
  - Density: Not determined.
  - 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.
- 9.2 Other information
  - No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity
  - No further relevant information available.
- 10.2 Chemical stability
  - Stable under normal handling and storage conditions.
- 10.3 Thermal decomposition / conditions to be avoided:
  - No decomposition if used according to specifications.
- 10.4 Possibility of hazardous reactions
  - No dangerous reactions known.
- 10.5 Conditions to avoid
  - No further relevant information available.
- 10.6 Hazardous decomposition products:
  - None under normal conditions of storage and use.
SECTION 11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity:
  - Primary irritant effect:
    - on the skin: No irritant effect.
    - on the eye: Mechanical effects only.
  - Sensitisation: No sensitising effects known.
- Additional toxicological information:
  Fumes or dusts generated from cutting or grinding operations may cause respiratory irritation.

SECTION 12: Ecological information

12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability: No further relevant information available.
- 12.3 Bioaccumulative potential: No further relevant information available.
- 12.4 Mobility in soil: No further relevant information available.
- Additional ecological information:
  - General notes:
    Water hazard class 1 (German Regulation) (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.
  - 12.5 Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.
  - 12.6 Other adverse effects: No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
- Recommendation:
  Take to an approved landfill or a waste incineration plant, under conditions approved by the local authority.
- European waste catalogue
  20 01 40 metals
- Uncleaned packaging:
  - Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number
- ADR, ADN, IMDG, IATA: Void
- ADR, ADN, IMDG, IATA: Void
14.2 UN proper shipping name
- ADR, ADN, IMDG, IATA: Void
14.3 Transport hazard class(es)
- ADR, ADN, IMDG, IATA: Void
40.1.5
· 14.4 Packing group
  ADR, IMDG, IATA
  Void
· 14.5 Environmental hazards:
  Marine pollutant:
  No
· 14.6 Special precautions for user
  Not applicable.
· 14.7 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":
  -

SECTION 15: Regulatory information
· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
· National regulations:
· Other regulations, limitations and prohibitive regulations
  The product is a medical device according to the Directive 93/42/EEC.
· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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.

· Relevant phrases
  H272 May intensify fire; oxidiser.
  H400 Very toxic to aquatic life.
  H410 Very toxic to aquatic life with long lasting effects.
· 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
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  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)
  Ox. Sol. 2: Oxidising Solids, Hazard Category 2
  Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
  Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
  Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

* Data compared to the previous version altered.