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

1.1 Product identifier
Trade name: Laser Ceramic Yellow PdF

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 prothesis
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 6925
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, 9494 Schaan, Liechtenstein)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Ox. Sol. 2 H272 May intensify fire; oxidiser.

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

GHS03

Signal word Danger
Hazard statements
H272 May intensify fire; oxidiser.

Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 Keep away from clothing and other combustible materials.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
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.

(Contd. on page 2)
SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures
- Description: Dental alloy

Dangerous components:

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS:</th>
<th>Component</th>
<th>Hazard</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-06-4</td>
<td>231-116-1</td>
<td>platinum</td>
<td>Ox. Sol. 2, H272</td>
<td>10-25%</td>
</tr>
<tr>
<td>7439-89-6</td>
<td>231-096-4</td>
<td>iron</td>
<td>Acute Tox. 2, H300</td>
<td>&lt;2.5%</td>
</tr>
</tbody>
</table>

Additional information: For the wording of the listed hazard 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.
- 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.

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: Use fire extinguishing methods suitable to surrounding conditions.

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
- Wear protective equipment. Keep unprotected persons away.
- 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.

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.
- Only adequately trained personnel should handle this product.
Trade name: **Laser Ceramic Yellow PdF**

For use in dentistry only.

- **Information about fire - and explosion protection**: Keep ignition sources away - Do not smoke.

- **7.2 Conditions for safe storage, including any incompatibilities**
  - **Storage**:
    - **Requirements to be met by storerooms and receptacles**: Store only in the original receptacle.
    - **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.

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**SECTION 8: Exposure controls/personal protection**

- **Additional information about design of technical facilities**: No further data; see item 7.

- **8.1 Control parameters**

  - **Ingredients with limit values that require monitoring at the workplace**:
    - **CAS**: 7440-06-4 platinum
    - **WEL**: Long-term value: 5 mg/m³

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

- **8.2 Exposure controls**

  - **Personal protective equipment**:
    - **General protective and hygienic measures**:
      - Keep away from foodstuffs, beverages and feed.
      - Wash hands before breaks and at the end of work.
      - Usual hygienic measures for dental practice and dental laboratories.
    - **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.

  - **Protective gloves (EN 374)**

  - 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
    - **Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation**
    - **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).

  - **Tightly sealed goggles (EN 166)**

(Contd. of page 4)
### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

**General Information**

- **Appearance:** Solid
- **Colour:** Grey
- **Odour:** Odourless
- **Odour threshold:** Not determined.
- **pH-value:** Not applicable.

**Change in condition**

- **Melting point/freezing point:** Undetermined.
- **Initial boiling point and boiling range:** Undetermined.
- **Flash point:** Not applicable.
- **Flammability (solid, gas):** Contact with combustible material may cause fire.
- **Decomposition temperature:** Not determined.
- **Auto-ignition temperature:** Product is not selfigniting.
- **Explosive properties:** Product does not present an explosion hazard.
- **Explosion limits:**
  - **Lower:** Not determined.
  - **Upper:** Not determined.
- **Vapour pressure:** Not applicable.
- **Density:**
  - **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.

#### Thermal decomposition / conditions to be avoided

No decomposition if used according to specifications.

#### 10.3 Possibility of hazardous reactions

No dangerous reactions known.

#### 10.4 Conditions to avoid

No further relevant information available.

#### 10.5 Incompatible materials

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: Based on available data, the classification criteria are not met.
   - Skin corrosion/irritation: Based on available data, the classification criteria are not met.
   - Serious eye damage/irritation: Based on available data, the classification criteria are not met.
   - Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.
   - Additional toxicological information:
     - Fumes or dusts generated from cutting or grinding operations may cause respiratory irritation.
     - Germ cell mutagenicity: Based on available data, the classification criteria are not met.
     - Carcinogenicity: Based on available data, the classification criteria are not met.
     - Reproductive toxicity: Based on available data, the classification criteria are not met.
     - STOT-single exposure: Based on available data, the classification criteria are not met.
     - STOT-repeated exposure: Based on available data, the classification criteria are not met.
     - Aspiration hazard: Based on available data, the classification criteria are not met.

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.
   - General notes: Not hazardous for water.
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: Must not be disposed together with household garbage. Do not allow product to reach sewage system. Take to an approved landfill or a waste incineration plant, under conditions approved by the local authority.
   - Uncleaned packaging:
     - Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number
   - ADR/RID/ADN, ADN, IMDG, IATA: Void
14.2 UN proper shipping name
   - ADR/RID/ADN, ADN, IMDG, IATA: Void
14.3 Transport hazard class(es)
   - ADR/RID/ADN, ADN, IMDG, IATA: Void
 SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category P8 OXIDISING LIQUIDS AND SOLIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
- 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.
H300 Fatal if swallowed.

Classification according to Regulation (EC) No 1272/2008
The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

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)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Ox. Sol. 2: Oxidizing solids – Category 2
Acute Tox. 2: Acute toxicity – Category 2