1 Identification

- **Product identifier**
  - **Trade name:** IPS e.max Ceram Glaze and Stain Liquid longlife
- **CAS Number:** 111-29-5
- **EC number:** 203-854-4
- **Relevant identified uses of the substance or mixture and uses advised against**
  - No further relevant information available.
- **Application of the substance / the mixture** Auxiliary for 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**
  - The substance is not classified according to the Globally Harmonized System (GHS).

- **Label elements**
  - **GHS label elements** Void
  - **Hazard pictograms** Void
  - **Signal word** Void
  - **Hazard statements** Void

- **Classification system**
  - **NFPA ratings (scale 0 - 4)**
    - Health = 1
    - Fire = 1
    - Reactivity = 0

(Contd. on page 2)
Trade name: **IPS e.max Ceram Glaze and Stain Liquid longlife**

- **HMIS-ratings (scale 0 - 4)**
  - **HEALTH** Health = 1
  - **FIRE** Fire = 1
  - **REACTIVITY** Reactivity = 0

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

### 3 Composition/information on ingredients

- **Chemical characterization: Substances**
  - **CAS No.** Description
  - 111-29-5 pentane-1,5-diol
  - **Identification number(s)**
  - EC number: 203-854-4

### 4 First-aid measures

- **Description of first aid measures**
  - **General information:** No special measures required.
  - **After inhalation:** Supply fresh air; consult doctor in case of complaints.
  - **After skin contact:**
    - Rinse with water.
    - Generally the product does not irritate the skin.
  - **After eye contact:**
    - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - **After swallowing:**
    - Rinse out mouth and then drink plenty of water.
    - If symptoms persist consult doctor.
  - **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:
    - CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - Special hazards arising from the substance or mixture No further relevant information available.
  - Advice for firefighters
  - Protective equipment: No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
7 Handling and storage

- Handling:
  - Precautions for safe handling
    Only adequately trained personnel should handle this product.
    For use in dentistry only.
  - 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: Store only in the original receptacle.
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions:
    - This product is hygroscopic.
    - Keep receptacle tightly sealed.
  - 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: Not required.
  - 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.
      - Wash hands before breaks and at the end of work.
      - Keep away from foodstuffs, beverages and feed.
    - Breathing equipment: Not required.
    - Protection of hands:
      - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
      - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
      - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
    - Material of gloves
      - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
    - 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: Safety glasses

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

- Information on basic physical and chemical properties
  - General Information
    - Appearance:
      - Form: Fluid
      - Color: Colorless
      - Odor: Odorless
      - Odour threshold: Not determined.
    - pH-value: Not determined.
  - Change in condition
    - Melting point/Melting range: -18 °C (-0 °F)
    - Boiling point/Boiling range: 239 °C (462 °F)
  - Flash point: 135 °C (275 °F)
  - Flammability (solid, gaseous): Not applicable.
  - Ignition temperature: 330 °C (626 °F)
  - Auto igniting: Not determined.
  - Danger of explosion: Product does not present an explosion hazard.
  - Explosion limits:
    - Lower: 1.3 Vol %
    - Upper: 13.1 Vol %
  - Vapor pressure at 20 °C (68 °F): <0.01 hPa (<0 mm Hg)
  - Density at 20 °C (68 °F): 0.99 g/cm³ (8.262 lbs/gal)
  - Relative density: Not determined.
  - Vapour density: Not determined.
  - Evaporation rate: Not determined.
  - Solubility in / Miscibility with Water: Fully miscible.
  - Partition coefficient (n-octanol/water): Not determined.
  - Viscosity:
    - Dynamic: Not determined.
    - Kinematic: Not determined.
  - 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:
  · LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Oral LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>111-29-5 pentane-1,5-diol</td>
<td>2000 mg/kg (rat)</td>
</tr>
</tbody>
</table>

· Primary irritant effect:
  · on the skin: No irritant effect.
  · on the eye: No irritating effect.
  · Sensitization: No sensitizing effects known.
  · Additional toxicological information: No further relevant information available.

· Carcinogenic categories
  · NTP (National Toxicology Program)
    Substance is not listed.
  · OSHA-Ca (Occupational Safety & Health Administration)
    Substance is not 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:
    Water hazard class 1 (Assessment by list): slightly hazardous for water
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
  · 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.
  · Recommended cleansing agent: Water, if necessary with cleansing agents.
14 Transport information

- **UN-Number**
  - DOT, ADR, ADN, IMDG, IATA: Void
- **UN proper shipping name**
  - DOT, ADN, IMDG, IATA: Void
  - ADR: Void
- **Transport hazard class(es)**
  - DOT, ADR, ADN, IMDG, IATA: Void
  - Class: Void
- **Packing group**
  - DOT, 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):**
    - Substance is not listed.
  - **Section 313 (Specific toxic chemical listings):**
    - Substance is not listed.
  - **TSCA (Toxic Substances Control Act):**
    - Substance is listed.
- **Proposition 65**
  - **Chemicals known to cause cancer:**
    - Substance is not listed.
  - **Chemicals known to cause reproductive toxicity for females:**
    - Substance is not listed.
  - **Chemicals known to cause reproductive toxicity for males:**
    - Substance is not listed.
  - **Chemicals known to cause developmental toxicity:**
    - Substance is not listed.
- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    - Substance is not listed.
Trade name: IPS e.max Ceram Glaze and Stain Liquid longlife

- **TLV (Threshold Limit Value established by ACGIH)**
  Substance is not listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  Substance is not 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 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** 05/18/2015 / 4

- **Abbreviations and acronyms:**
  - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the
    International Transport of Dangerous Goods by Rail)
  - ICAO: International Civil Aviation Organisation
  - 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
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent

* **Data compared to the previous version altered.**