1 Identification

- **Product identifier**
  - **Trade name:** IPS e.max Ceram Glaze and Stain Liquid allround

- **CAS Number:**
  - 107-88-0

- **EC number:**
  - 203-529-7

- **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 = 0
    - Fire = 1
    - Reactivity = 0

(Contd. on page 2)
40.1.5
· HMIS-ratings (scale 0 - 4)
  HEALTH  Health = 0
  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
    107-88-0 butane-1,3-diol
· Identification number(s)
  - EC number: 203-529-7

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).
Trade name: IPS e.max Ceram Glaze and Stain Liquid allround

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:
    The product does not contain any relevant quantities of materials with critical values that have to be
    monitored at the workplace.
  - 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
### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:**
      - **Form:** Fluid
      - **Color:** Colorless
      - **Odour:** Nearly odorless
      - **Odour threshold:** Not determined.
    - **pH-value:** Not determined.
  - **Change in condition**
    - **Melting point/Melting range:** -50 °C
    - **Boiling point/Boiling range:** Undetermined.
  - **Flash point:** 109 °C
  - **Flammability (solid, gaseous):** Not applicable.
  - **Ignition temperature:** 375 °C
  - **Auto igniting:** Not determined.
  - **Danger of explosion:** Product does not present an explosion hazard.
  - **Explosion limits:**
    - **Lower:** Not determined.
    - **Upper:** Not determined.
  - **Vapor pressure:** Not determined.
  - **Density at 20 °C:** 1 g/cm³
  - **Relative density**
  - **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:
  - 107-88-0 butane-1,3-diol
  - Oral LD50 18610 mg/kg (rat)
- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
  - The substance is not subject to classification.
- 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 (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.
- 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, TDG, ADN, IMDG, IATA: Void

- **UN proper shipping name**
  - DOT, ADN, IMDG, IATA: Void
  - TDG: Void

- **Transport hazard class(es)**
  - DOT, TDG, ADN, IMDG, IATA: Void
  - Class: Void

- **Packing group**
  - DOT, TDG, IMDG, IATA: Void

- **Environmental hazards:**
  - Marine pollutant: No

- **Special precautions for user**
  - Not applicable.

- **Transport in bulk according to Annex II of MARPOL 73/78 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.
Material Safety Data Sheet  
acc. to ISO 11014  

Printing date 05/18/2015  
Reviewed on 04/15/2015  
Version number 7

Trade name: **IPS e.max Ceram Glaze and Stain Liquid allround**

<table>
<thead>
<tr>
<th><strong>TLV (Threshold Limit Value established by ACGIH)</strong></th>
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<th><strong>National regulations:</strong></th>
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<tr>
<td><strong>Other regulations, limitations and prohibitive regulations</strong></td>
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<tr>
<td>The product is a medical device according to the Directive 93/42/EEC.</td>
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<tr>
<td>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.</td>
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<tr>
<th><strong>Chemical safety assessment:</strong></th>
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<td>A Chemical Safety Assessment has not been carried out.</td>
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**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.

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<thead>
<tr>
<th><strong>Date of preparation / last revision</strong></th>
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<table>
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<tr>
<th><strong>Abbreviations and acronyms:</strong></th>
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<tbody>
<tr>
<td>ICAO: International Civil Aviation Organisation</td>
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<td>IMDG: International Maritime Code for Dangerous Goods</td>
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<td>DOT: US Department of Transportation</td>
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<td>IATA: International Air Transport Association</td>
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<tr>
<td>ACGIH: American Conference of Governmental Industrial Hygienists</td>
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<td>EINECS: European Inventory of Existing Commercial Chemical Substances</td>
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<td>CAS: Chemical Abstracts Service (division of the American Chemical Society)</td>
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<td>NFPA: National Fire Protection Association (USA)</td>
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<td>HMIS: Hazardous Materials Identification System (USA)</td>
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<tr>
<td>LC50: Lethal concentration, 50 percent</td>
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<td>LD50: Lethal dose, 50 percent</td>
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* Data compared to the previous version altered.