1 Identification

· Product identifier
  · Trade name: **IPS e.max CAD Crystall./Glaze Liquid**
  · 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
Trade name: **IPS e.max CAD Crystall./Glaze Liquid**

- **HMIS-ratings (scale 0 - 4)**
  - Health = 0
  - Fire = 1
  - 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.
  - **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.

### 5 Fire-fighting measures

- **Extinguishing media**
  - **Suitable extinguishing agents**:
    - CO2, extinguishing powder or water spray. Fight larger fire with alcohol resistant foam.
  - **Special hazards arising from the substance or mixture**
  - **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/s surface or ground water.
- **Methods and material for containment and cleaning up**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

(Contd. on page 3)
Trade name: IPS e.max CAD Crystall./Glaze Liquid

(Contd. of page 2)

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.

(Contd. on page 4)

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. on 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:** -50 °C (-58 °F)
  - **Boiling point/Boiling range:** 207 °C (405 °F)
- **Flash point:** 109 °C (228 °F)
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** 375 °C (707 °F)
- **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 (68 °F):** 1 g/cm³ (8.345 lbs/gal)
- **Relative density**
- **Vapour density**
- **Evaporation rate**
- **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.
Safety Data Sheet
acc. to OSHA HCS

Printing date 05/18/2015 Reviewed on 04/15/2015
Version number 4

Trade name: IPS e.max CAD Crystall./Glaze Liquid

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: 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 (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, ADR, ADN, IMDG, IATA: Void
Trade name: IPS e.max CAD Crystall./Glaze Liquid

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.
    - TLV (Threshold Limit Value established by ACGIH)
      Substance is not listed.
    - NIOSH-Ca (National Institute for Occupational Safety and Health)
      Substance is not listed.
Trade name: IPS e.max CAD Crystall./Glaze Liquid

- **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 / 3
- **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
  - 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.