This SDS packet was issued with item:
077173933

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

077173909 077173917 077173925 077173941 077173958 077173966
1 Identification of the substance/mixture and of the company/undertaking

- Product identifier
  - Trade name: IPS e.max Ceram Impulse: Occlusal Dentin, Mamelon, Incisal Edge, Opal Effect, Transpa, Special Incisal, Inter Incisal, Cervical Transpa

- CAS Number: 66402-68-4
- EC number: 266-340-9

- Relevant identified uses of the substance or mixture and uses advised against
  - No further relevant information available.

- Application of the substance / the preparation
  - Manufacture of dental prosthesis
  - Fluorapatite glass-ceramic

- Details of the supplier of the safety data sheet
  - Manufacturer/Supplier: Ivoclar Vivadent AG
    Bendererstrasse 2
    FL-9494 Schaan
    FÜRSTENTUM LIECHTENSTEIN
    Tel: +423 235 35 35
    Fax: +423 235 33 60
  - Information department: Regulatory Affairs
  - msds@ivoclarvivadent.com
  - Emergency telephone number: +423 / 235 33 13

2 Hazards identification

- Classification of the substance or mixture
  - The substance is not classified according to the Globally Harmonized System (GHS).

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.

- Information concerning particular hazards for human and environment: Not applicable.

- Label elements
  - Labelling according to EU guidelines:
    - The substance is not subject to classification according to the sources of literature known to us.
  - Additional information: Void
  - Classification system:
  - NFPA ratings (scale 0 - 4)
    - Health = 0
    - Fire = 0
    - Reactivity = 0
  - HMIS-ratings (scale 0 - 4)
    - HEALTH Healthy = 0
    - FIRE Fire = 0
    - REACTIVITY Reactivity = 0

- Other hazards
  - Dust generation

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

- Chemical characterization: Substances
- CAS No. Description
  66402-68-4 ceramic materials
- Identification number(s)
- EC number: 266-340-9

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.
  In case of unconsciousness place patient stably in side position for transportation.
- 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.
  Mechanical effects only.
- 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 Firefighting measures

- Extinguishing media
- Suitable extinguishing agents: The product is not flammable.
- 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
  Particular danger of slipping on leaked/spilled product.
- Environmental precautions: No special measures required.
- Methods and material for containment and cleaning up:
  Pick up mechanically.
Ensure adequate ventilation.

- **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.

### 7 Handling and storage

- **Handling:**
  - **Precautions for safe handling**
    - Only adequately trained personnel should handle this product.
    - Prevent formation of dust.
    - Ensure good ventilation/exhaustion at the workplace.
  - **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:**
      - Keep receptacle tightly sealed.
      - Store in dry conditions.
  - **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.
      - Vacuum clean contaminated clothing. Do not blow or brush off contamination.
      - Do not inhale dust / smoke / mist.
    - **Breathing equipment:**
      - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respirator protective device that is independent of circulating air.
    - **Recommended filter device for short term use:** Filter P2
    - **Protection of hands:** Not required.
    - **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

- **General Information**
  - **Appearance:**
    - **Form:** Powder
    - **Color:** According to product specification
    - **Odor:** Odorless
    - **Odour threshold:** Not determined.
  - **pH-value:** Not applicable.
- **Change in condition**
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: Undetermined.
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Product is not flammable.
- **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 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.
- **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.
Trade name: IPS e.max Ceram Impulse: Occlusal Dentin, Mamelon, Incisal Edge, Opal Effect, Transpa, Special Incisal, Inter Incisal, Cervical Transpa

### 11 Toxicological information

- **Hazardous decomposition products:** None under normal conditions of storage and use.
- **Information on toxicological effects**
  - **Acute toxicity:**
  - **Primary irritant effect:**
    - **on the skin:** No irritant effect.
    - **on the eye:** Mechanical effects only.
  - **Sensitization:** No sensitizing effects known.
  - **Additional toxicological information:** The substance is not subject to classification.

#### NTP (National Toxicology Program)
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:** Generally not hazardous for water
    - **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

- **UN proper shipping name**
  - DOT, ADR, ADN, IMDG, IATA Void
Trade name: IPS e.max Ceram Impulse: Occlusal Dentin, Mamelon, Incisal Edge, Opal Effect, Transpa, Special Incisal, Inter Incisal, Cervical Transpa

- Transport hazard class(es)
  - DOT, ADR, ADN, IMDG, IATA
  - 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.
- 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.
  - 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 Ceram Impulse: Occlusal Dentin, Mamelon, Incisal Edge, Opal Effect, Transpa, Special Incisal, Inter Incisal, Cervical Transpa

- OSHA-Ca (Occupational Safety & Health Administration)
  Substance is not listed.

- Product related hazard informations:
  The substance is not subject to classification according to the sources of literature known to us.

- National regulations:
  - Other regulations, limitations and prohibitive regulations
    The product is a medical device according to the EC-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.

- 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 Organization
  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)
1 Identification

- **Product identifier**
- **Trade name:** IPS e.max Ceram Impulse: Occlusal Dentin, Mamelon, Incisal Edge, Opal Effect, Transpa, Special Incisal, Inter Incisal, Cervical Transpa
- **CAS Number:** 66402-68-4
- **EC number:** 266-340-9
- **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
- **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 = 0
    - Reactivity = 0

(Contd. on page 2)
Trade name: **IPS e.max Ceram Impulse: Occlusal Dentin, Mamelon, Incisal Edge, Opal Effect, Transpa, Special Incisal, Inter Incisal, Cervical Transpa**

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

- **Other hazards**
  - Dust generation
  - Particular danger of slipping on leaked/spilled product.

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

### 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
  - 66402-68-4 ceramic materials
- **Identification number(s)**
  - EC number: 266-340-9

### 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.
    - In case of unconsciousness place patient stably in side position for transportation.
  - **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.
    - Mechanical effects only.
  - **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:** The product is not flammable.
  - **Special hazards arising from the substance or mixture:** No further relevant information available.
Trade name: IPS e.max Ceram Impulse: Occlusal Dentin, Mamelon, Incisal Edge, Opal Effect, Transpa, Special Incisal, Inter Incisal, Cervical Transpa

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Particular danger of slipping on leaked/spilled product.
- Environmental precautions: No special measures required.
- Methods and material for containment and cleaning up:
  Pick up mechanically.
  Ensure adequate ventilation.
- 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.

7 Handling and storage

- Handling:
  Precautions for safe handling
  Only adequately trained personnel should handle this product.
  Prevent formation of dust.
  Ensure good ventilation/exhaustion at the workplace.
  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:
  Keep receptacle tightly sealed.
  Store in dry conditions.
- 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.
  Vacuum clean contaminated clothing. Do not blow or brush off contamination.
  Do not inhale dust / smoke / mist.
**Trade name:** IPS e.max Ceram Impulse: Occlusal Dentin, Mamelon, Incisal Edge, Opal Effect, Transpa, Special Incisal, Inter Incisal, Cervical Transpa

- **Breathing equipment:**
  In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **Recommended filter device for short term use:** Filter P2

- **Protection of hands:** Not required.

- **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:** Powder
      - **Color:** According to product specification
      - **Odor:** Odorless
      - **Odour threshold:** Not determined.

    - **pH-value:** Not applicable.

  - **Change in condition**
    - **Melting point/Melting range:** Undetermined.
    - **Boiling point/Boiling range:** Undetermined.

  - **Flash point:** Not applicable.

  - **Flammability (solid, gaseous):** Product is not flammable.

  - **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 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.
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:
    - Primary irritant effect:
      - on the skin: No irritant effect.
      - on the eye: Mechanical effects only.
    - 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: Generally not hazardous for water
    - Results of PBT and vPvB assessment
      - PBT: Not applicable.
      - vPvB: Not applicable.
    - Other adverse effects: No further relevant information available.

(Contd. on page 6)
## 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

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

- Transport hazard class(es)
  - DOT, ADR, ADN, IMDG, IATA
    - 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.

#### 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)

* Data compared to the previous version altered.