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

- **1.1 Product identifier**
  - **Trade name:** IPS e.max Press Invex Liquid

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

- **1.3 Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** Ivoclar Vivadent AG
    Bendererstrasse 2
    FL-9494 Schaan
    PRINCIPALITY OF LIECHTENSTEIN
  - Tel: +423 235 35 35
  - Fax: +423 235 33 60

- **1.4 Emergency telephone number:** +423 / 235 33 13 (Ivoclar Vivadent AG, FL-9494 Schaan, Liechtenstein)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
  - **Classification according to Regulation (EC) No 1272/2008**
    - Acute Tox. 4 H302 Harmful if swallowed.
    - Acute Tox. 4 H312 Harmful in contact with skin.
    - Eye Irrit. 2 H319 Causes serious eye irritation.

- **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**
  - ![GHS07](image)

- **Signal word** Warning

- **Hazard-determining components of labelling:**
  - hydrofluoric acid

- **Hazard statements**
  - H302 + H312 Harmful if swallowed or in contact with skin.
  - H319 Causes serious eye irritation.

- **Precautionary statements**
  - P280 Wear protective gloves/protective clothing/eye protection/face protection.
  - P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
  - P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P312 Call a POISON CENTER/doctor if you feel unwell.
  - P322 Specific measures (see on this label).
  - P363 Wash contaminated clothing before reuse.

(Contd. on page 2)
2.3 Other hazards

Special safety notes for the use of IPS Ceramic Etching Gel: Hydrofluoric acid is highly toxic. It is strongly corrosive and does not cause any warning pain on the surface of skin and mucous membranes, but causes subsequent, painful in-depth effect.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

Description: Acids in aqueous solution

Dangerous components:

<table>
<thead>
<tr>
<th>CAS:</th>
<th>EINECS:</th>
<th>Chemical</th>
<th>Flavour</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>7664-93-9</td>
<td>231-639-5</td>
<td>sulphuric acid</td>
<td></td>
<td>1-&lt;2.5%</td>
</tr>
<tr>
<td>7664-39-3</td>
<td>231-634-8</td>
<td>hydrofluoric acid</td>
<td></td>
<td>0.3-&lt;1%</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: Immediately remove any clothing soiled by the product.

After inhalation:
Supply fresh air or oxygen; call for doctor. In case of unconsciousness place patient stably in side position for transportation.

After skin contact:
Immediately wash with water and soap and rinse thoroughly. Rub in Ca-gluconate solution or Ca-gluconate gel immediately. Seek medical treatment.

After eye contact:
Rinse opened eye for several minutes under running water. Seek immediate medical advice.

After swallowing:
Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

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
Antidote: Ca-gluconate solution / Ca-gluconate gel

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:
The product is not flammable.
Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture
During heating or in case of fire poisonous gases are produced.

5.3 Advice for firefighters
Protective equipment: Mouth respiratory protective device.
Safety data sheet
according to 1907/2006/EC, Article 31

Trade name: IPS e.max Press Invex Liquid

45.0

- Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions: Dilute with plenty of water.
- 6.3 Methods and material for containment and cleaning up:
  Use neutralising agent.
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.
- 6.4 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
  Only adequately trained personnel should handle this product.
  For use in dentistry only.
  Ensure good ventilation/exhaustion at the workplace.
  Open and handle receptacle with care.
- Information about fire - and explosion protection: Keep respiratory protective device available.
- 7.2 Conditions for safe storage, including any incompatibilities
  - Storage:
    - Requirements to be met by storerooms and receptacles:
      Store only in the original receptacle.
      Attacks materials containing glass and silicate.
    - Information about storage in one common storage facility: Store away from flammable substances.
  - Further information about storage conditions:
    - Keep container tightly sealed.
    - Protect from heat and direct sunlight.
- 7.3 Specific end use(s) No further relevant information available.

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: 7664-93-9 sulphuric acid
      - WEL Long-term value: 0.05* mg/m³
      *mist: is defined as fraction
    - CAS: 7664-39-3 hydrofluoric acid
      - WEL Short-term value: 2.5 mg/m³, 3 ppm
      - Long-term value: 1.5 mg/m³, 1.8 ppm
  - Additional information: The lists valid during the making were used as basis.

(Contd. on page 4)
8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:
Usual hygienic measures for dental practice and dental laboratories.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Immediately remove all soiled and contaminated clothing
Store protective clothing separately.
Avoid contact with the eyes and skin.
Do not inhale gases / fumes / aerosols.

Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Recommended filter device for short term use: Combination filter E-P2

Protection of hands:

- Protective gloves
After use of gloves apply skin-cleaning agents and skin cosmetics.
- Material of gloves
Butyl rubber, BR
Fluorocarbon rubber (Viton)
Chloroprene rubber, CR
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:
Tightly sealed goggles
- Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Appearance:
  - Form: Fluid
  - Colour: Colourless
  - Odour: Odourless
  - Odour threshold: Not determined.
- pH-value at 20 °C: 2.2 (ISO 787)
- Change in condition
  - Melting point/freezing point: Undetermined.
  - Initial boiling point and boiling range: ~100 °C
- Flash point: Undetermined.
45.0

- Flammability (solid, gas): Not applicable.
- Auto-ignition temperature: Product is not self-igniting.
- Explosive properties: Product does not present an explosion hazard.
- Explosion limits:
  Lower: Not determined.
  Upper: Not determined.
- Vapour pressure: Not determined.
- Density at 20 °C: ~1.008 g/cm³
- 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.
- 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
  Reacts with:
  - Ammonia
  - Sulphuric acid
  Reacts with alkali (lyes).
  Reacts with organic substances.
  Reacts with metals forming hydrogen.
- 10.4 Conditions to avoid: Keep away from heat and direct sunlight.
- 10.5 Incompatible materials: Attacks materials containing glass and silicate.
- 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
    Harmful if swallowed or in contact with skin.
  - Skin corrosion/irritation: Based on available data, the classification criteria are not met.
  - Serious eye damage/irritation
    Causes serious eye irritation.
  - Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.
  - Additional toxicological information: No further relevant information available.
  - 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.
Trade name: **IPS e.max Press Invex Liquid**

(Contd. of page 5)

**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.

- **Additional ecological information:**
  - General notes: Generally 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**
    - Use neutralising agent.
    - Take to an approved landfill or a waste incineration plant, under conditions approved by the local authority.

- **European waste catalogue**
  - **18 01 06** Chemicals consisting of or containing dangerous substances
  - **20 01 14** Acids

- **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 Class Void

- **14.4 Packing group**
  - ADR/RID/ADN, IMDG, IATA Void

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

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

(Contd. on page 7)
Trade name: IPS e.max Press Invex Liquid

| 14.7 Transport in bulk according to Annex II of Marpol 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": | Void |

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- 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
- H300 Fatal if swallowed.
- H310 Fatal in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H330 Fatal if inhaled.

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
- Acute Tox. 2: Acute toxicity – Category 2
- Acute Tox. 4: Acute toxicity – Category 4
- Acute Tox. 1: Acute toxicity – Category 1
- Skin Corr. 1A: Skin corrosion/irritation – Category 1A
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

* Data compared to the previous version altered.