1 Identification

- **Product identifier**
- **Trade name:** IPS e.max Press Invex Liquid
- **Relevant identified uses of the substance or mixture and uses advised against**
  No further relevant information available.
- **Application of the substance / the mixture** Discharging agent
- **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**
  Acute Tox. 4  H302  Harmful if swallowed.
  Acute Tox. 4  H312  Harmful in contact with skin.
  Eye Irrit. 2A  H319  Causes serious eye irritation.
  Carc. 1A  H350  May cause cancer.

- **Label elements**
  **GHS label elements**
  The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**
  GHS07  GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**
  hydrofluoric acid
  sulphuric acid

(Contd. on page 2)
Hazard statements
Harmful if swallowed or in contact with skin.
Causes serious eye irritation.
May cause cancer.

Precautionary statements
Wear protective gloves/protective clothing/eye protection/face protection.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific measures (see on this label).
Call a poison center/doctor if you feel unwell.
Wash contaminated clothing before reuse.
If on skin: Wash with plenty of soap and water.

Classification system:

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

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

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.

Composition/information on ingredients
Chemical characterization: Mixtures
Description: Acids in aqueous solution

Dangerous components:

<table>
<thead>
<tr>
<th>Chemical Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>7664-93-9 sulphuric acid</td>
<td>1-&lt;2.5%</td>
</tr>
<tr>
<td>7664-39-3 hydrofluoric acid</td>
<td>0.1-&lt;1%</td>
</tr>
</tbody>
</table>

First-aid measures
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; immediately call for medical help.
- **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
    Antidote: Ca-gluconate solution / Ca-gluconate gel

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
  The product is not flammable.
  Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
  During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
  - Protective equipment: Mouth respiratory protective device.
  - Additional information
    Cool endangered receptacles with water spray.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
  Use neutralizing 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.
- **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.
    For use in dentistry only.
    Ensure good ventilation/exhaustion at the workplace.
    Open and handle receptacle with care.
  - Information about protection against explosions and fires: Keep respiratory protective device available.
- **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.
Trade name: IPS e.max Press Invex Liquid

- Further information about storage conditions:
  - Keep receptacle tightly sealed.
  - Protect from heat and direct sunlight.
- 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:
    | Component                  | PEL Long-term value: 1 mg/m³ | REL Long-term value: 1 mg/m³ | TLV Long-term value: 0.2* mg/m³ |
    | 7664-93-9 sulphuric acid   | 7664-39-3 hydrofluoric acid  |
    |                            |                               |                               | *as thoracic fraction           |
    | PEL Long-term value: 3 ppm | REL Long-term value: 2.5 mg/m³, 3 ppm |
    | as F                       | Ceiling limit value: 5* mg/m³, 6 ppm |
    |                            | *15-min, as F                 |
    | TLV Long-term value: 0.41 mg/m³, 0.5 ppm |
    | as F; Skin; BEI            |
  - Ingredients with biological limit values:
    | 7664-39-3 hydrofluoric acid |
    | BEI 3 mg/g creatinine      |
    | Medium: urine              |
    | Time: prior to shift       |
    | Parameter: Flourides (background) |
    | 10 mg/g creatinine         |
    | Medium: urine              |
    | Time: end of shift         |
    | Parameter: Flourides (background) |
  - 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.
      - 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.
    - 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: Combination filter E-P2
Trade name: **IPS e.max Press Invex Liquid**

- **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

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### 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 at 20 °C (68 °F):** 2.2 (ISO 787)

    - **Change in condition**
      
      Melting point/Melting range: Undetermined.
      
      Boiling point/Boiling range: ~100 °C (~212 °F)

    - **Flash point:** Undetermined.

    - **Flammability (solid, gaseous):** Not applicable.

    - **Auto igniting:** Product is not selfigniting.

    - **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):** ~1.008 g/cm³ (~8.412 lbs/gal)

    - **Relative density**

      Not determined.

    - **Vapour density**

      Not determined.

    - **Evaporation rate**

      Not determined.
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: Reacts with:
  - Ammonia
  - Sulfuric acid
  - Reacts with alkali (lyes).
  - Reacts with organic substances.
  - Reacts with metals forming hydrogen.
- Conditions to avoid: Keep away from heat and direct sunlight.
- Incompatible materials: Attacks materials containing glass and silicate.
- 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: Irritating effect.
    - Sensitization: No sensitizing effects known.
  - Additional toxicological information: No further relevant information available.

- Carcinogenic categories:
  - IARC (International Agency for Research on Cancer):
    - 7664-93-9 sulphuric acid: 1
  - NTP (National Toxicology Program):
    - 7664-93-9 sulphuric acid: K
  - OSHA-Ca (Occupational Safety & Health Administration):
    - None of the ingredients is listed.

12 Ecological information

- Toxicity: No further relevant information available.
- 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.
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- 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: Use neutralizing agent. 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: 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):
      - 7664-93-9 sulphuric acid
    - Section 313 (Specific toxic chemical listings):
      - 7664-93-9 sulphuric acid
Trade name: **IPS e.max Press Invex Liquid**

- **TSCA (Toxic Substances Control Act):**
  - 7664-93-9 sulphuric acid

- **Proposition 65**
  - **Chemicals known to cause cancer:**
    - None of the ingredients is listed.
  - **Chemicals known to cause reproductive toxicity for females:**
    - None of the ingredients is listed.
  - **Chemicals known to cause reproductive toxicity for males:**
    - None of the ingredients is listed.
  - **Chemicals known to cause developmental toxicity:**
    - None of the ingredients is listed.

- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    - None of the ingredients is listed.
  - **TLV (Threshold Limit Value established by ACGIH)**
    - 7664-93-9 sulphuric acid
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    - None of the ingredients is listed.

- **GHS label elements**
  - The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    - GHS07
    - GHS08

- **Signal word** Danger
  - **Hazard-determining components of labeling:**
    - hydrofluoric acid
    - sulphuric acid
  - **Hazard statements**
    - Harmful if swallowed or in contact with skin.
    - Causes serious eye irritation.
    - May cause cancer.
  - **Precautionary statements**
    - Wear protective gloves/protective clothing/eye protection/face protection.
    - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
    - Specific measures (see on this label).
    - Call a poison center/doctor if you feel unwell.
    - Wash contaminated clothing before reuse.
    - If on skin: Wash with plenty of soap and water.
  - **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.
Trade name: **IPS e.max Press Invex Liquid**

- **Date of preparation / last revision**: 05/22/2015 / 7
- **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
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - Acute Tox. 4: Acute toxicity, Hazard Category 4
  - Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
  - Carc. 1A: Carcinogenicity, Hazard Category 1A
  - * Data compared to the previous version altered.