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

- **1.1 Product identifier**
  - Trade name: Email Preparator blue / blau

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

- **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
  - Further information obtainable from:
    - Regulatory Affairs
    - sds@ivoclarvivadent.com

- **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
    - Skin Corr. 1A H314 Causes severe skin burns and eye damage.
    - Eye Dam. 1 H318 Causes serious eye damage.

- **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

  - GHS05

- **2.3 Signal word** Danger

- **2.4 Hazard-determining components of labelling:**
  - phosphoric acid

- **2.5 Hazard statements**
  - H314 Causes severe skin burns and eye damage.

- **2.6 Precautionary statements**
  - P280 Wear protective gloves/protective clothing/eye protection/face protection.
  - P303+P361+P335 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P310 Immediately call a POISON CENTER/doctor.
  - P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

- **2.7 Additional information:**
  - Medical devices as defined in Directive 93/42/EEC and which are invasive or used in direct physical contact with the human body, are exempted from the provisions of Regulation (EC) No 1272/2008 (CLP/GHS) usually if they are in the finished state and intended for the final user.

(Contd. on page 2)
Trade name: Email Preparator blue / blau

- Other hazards
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

* SECTION 3: Composition/information on ingredients

- Chemical characterisation: Mixtures
  - Description: Mixture of substances listed below with nonhazardous additions.
  - Dangerous components:
    - CAS: 7664-38-2 phoshoric acid Skin Corr. 1B, H314 25-50%
    - EINECS: 231-633-2
  - Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- Description of first aid measures
  - General information: Immediately remove any clothing soiled by the product.
    - 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:
      Immediately rinse with water.
      If skin irritation continues, consult a doctor.
    - After eye contact:
      Rinse opened eye for several minutes under running water.
      Call a doctor immediately.
  - After swallowing:
    - Rinse out mouth and then drink plenty of water.
    - Do not induce vomiting; call for medical help immediately.

SECTION 5: Firefighting measures

- Extinguishing media
  - Suitable extinguishing agents:
    The product is not flammable.
    Use fire extinguishing methods suitable to surrounding conditions.
- Special hazards arising from the substance or mixture
  - Formation of toxic gases is possible during heating or in case of fire.
- Advice for firefighters
  - Protective equipment: No special measures required.

SECTION 6: Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  - Wear protective equipment. Keep unprotected persons away.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.

(Contd. on page 3)
6.3 Methods and material for containment and cleaning up:
Dilute with plenty of water.
Use neutralising agent.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.

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
No special precautions are necessary if used correctly.

7.2 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 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

8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace:
7664-38-2 phosphoric acid
WEL () Short-term value: 2 mg/m³
Long-term value: 1 mg/m³

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls
Personal protective equipment:
General protective and hygienic measures:
Usual hygienic measures for dental practice.
Avoid contact with the eyes and skin.
Immediately remove all soiled and contaminated clothing
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Respiratory protection: Not required.
Protection of hands:
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Material of gloves
Butyl rubber, BR

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(Contd. of page 3)

Fluorocarbon rubber (Viton)
Nitrile rubber, NBR
Natural rubber, NR
Chloroprene rubber, CR

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- 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

(Contd. on page 5)

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
- General Information
- Appearance:
  - Form: Viscous
  - Colour: Blue
  - Odour: Odourless
  - Odour threshold: Not determined.

- pH-value at 20 °C: < 1

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

- Flash point: Not applicable.

- Ignition temperature: Not determined.

- Decomposition temperature: Not determined.

- Self-igniting: Product is not selfigniting.

- Danger of explosion: Product does not present an explosion hazard.

- Explosion limits:
  - Lower: Not determined.
  - Upper: Not determined.

- Vapour pressure: Not determined.

- Density: Not determined.
  - Relative density: Not determined.
  - Vapour density: Not determined.
  - Evaporation rate: Not determined.

- Solubility in / Miscibility with water: Soluble.

- Partition coefficient (n-octanol/water): Not determined.
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: No dangerous reactions known.
- 10.4 Conditions to avoid: No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 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:
  - LD/LC50 values relevant for classification:
    - 7664-38-2 phosphoric acid
      - Oral LD50: 1530 mg/kg (rat)
- Primary irritant effect:
  - on the skin: Caustic effect on skin and mucous membranes.
  - on the eye: Strong caustic effect.
  - Sensitisation: No sensitising effects known.
- Additional toxicological information:
  Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

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:
    Water hazard class 1 (German Regulation) (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.
    Must not reach sewage water or drainage ditch undiluted or unneutralised.
    Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
- 12.5 Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
### SECTION 13: Disposal considerations

13.1 Waste treatment methods

- **Recommendation**
  - Must not be disposed together with household garbage. Do not allow product to reach sewage system.

#### European waste catalogue

- 18 01 06* chemicals consisting of or containing dangerous substances

- **Uncleaned packaging:**
  - **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

14.1 UN-Number

- **ADR, IMDG, IATA**
  - UN1805

14.2 UN proper shipping name

- **ADR**
  - 1805 PHOSPHORIC ACID, SOLUTION, mixture

- **IMDG, IATA**
  - PHOSPHORIC ACID, SOLUTION

14.3 Transport hazard class(es)

- **ADR**
  - **Class**
    - 8 (C1) Corrosive substances.
  - **Label**
    - 8

- **IMDG, IATA**
  - **Class**
    - 8 Corrosive substances.
  - **Label**
    - 8

14.4 Packing group

- **ADR, IMDG, IATA**
  - III

14.5 Environmental hazards:

- **Marine pollutant:**
  - No

14.6 Special precautions for user

- **Warning:**
  - Corrosive substances.
  - **Danger code (Kemler):**
    - 80
  - **EMS Number:**
    - F-A-S-B
  - **Segregation groups**
    - Acids

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

- **Not applicable.**
### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **National regulations:**
  - Other regulations, limitations and prohibitive regulations
    
    The product is a medical device according to the Directive 93/42/EEC.

- **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**

  H314 Causes severe skin burns and eye damage.

- **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)
  
  LC50: Lethal concentration, 50 percent
  
  LD50: Lethal dose, 50 percent
  
  Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
  
  Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
  
  Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

- **Data compared to the previous version altered.**