1 Identification

- **Product identifier**
- **Trade name:** PANAVIA ETCHING AGENT V
- **Article number:** CA031-EV
- **Relevant identified uses of the substance or mixture and uses advised against**
  No further relevant information available.
- **Application of the substance / the mixture**
  Dental etching composite

2 Hazard identification

- **Classification of the substance or mixture**
  - Skin Corrosion - Category 1B H314 Causes severe skin burns and eye damage.
  - Serious Eye Damage - Category 1 H318 Causes serious eye damage.

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

- **Hazard pictograms**
  - GHS05

- **Signal word** Danger

- **Hazard-determining components of labeling:** phosphoric acid

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

- **Precautionary statements**
  - **P260** Do not breathe dust/fume/gas/mist/vapours/spray.
  - **P280** Wear protective gloves/protective clothing/eye protection/face protection.
  - **P303+P361+P353** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
  - **P304+P340** IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  - **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.
  - **P321** Specific treatment (see on this label).
  - **P363** Wash contaminated clothing before reuse.

(Contd. on page 2)
Trade name: PANAVIA ETCHING AGENT V

(PA contd of page 1)

49.0.2
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/Information on ingredients

· Chemical characterization: Mixtures
· Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>7664-38-2 phosphoric acid</td>
<td>30-40%</td>
</tr>
</tbody>
</table>

Skin Corrosion - Category 1B, H314; Acute Toxicity (Oral) - Category 4, H302

* Actual concentration ranges are withheld as a trade secret.

· Other ingredients:
Polyvinylpyrrolidone
Colloidal silica
Water
Dyes

4 First aid measures

· Description of first aid measures
· General information: Immediately remove any clothing soiled by the product.
· After inhalation: In case of unconsciousness place patient stably in side position for transportation.
· After skin contact: Immediately wash with water and soap and rinse thoroughly.
· After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
· After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a 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:
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· Special hazards arising from the substance or mixture No further relevant information available.
· Advice for firefighters
· Protective equipment:
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Environment precautions:
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
· Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.

(Contd. on page 3)
Disposing 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: 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 in a cool location (2-25°C).
- Information about storage in one common storage facility:
  Store away from oxidizing agents.
  Store away from reducing agents.
- Further information about storage conditions:
  Keep receptacle tightly sealed.
  Store in cool, dry conditions in well sealed receptacles.
  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:

<table>
<thead>
<tr>
<th>Substance</th>
<th>EL</th>
<th>EV</th>
</tr>
</thead>
<tbody>
<tr>
<td>7664-38-2 phosphoric acid</td>
<td>Short-term</td>
<td>Short-term</td>
</tr>
<tr>
<td></td>
<td>value: 3 mg/m³</td>
<td>value: 3 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Long-term: 1 mg/m³</td>
<td>Long-term: 1 mg/m³</td>
</tr>
</tbody>
</table>

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

Exposure controls

Personal protective equipment:

General protective and hygienic measures:
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Breathing equipment: Not required.
Protection of hands:

Protective gloves

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

(Contd. on page 4)
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. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material
The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Tightly sealed goggles

9 Physical and chemical properties

Information on basic physical and chemical properties
General Information
Appearance:
Form: Liquid
Color: Red
Odor: Odorless
pH-value: 1.8

Change in condition
Melting point/Melting range: 42.4 °C (phosphoric acid)
Boiling point/Boiling range: Not determined

Flash point: Not determined
Ignition temperature: 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: Not determined

Partition coefficient (n-octanol/water): Not determined

Viscosity: Not determined

Other information No further relevant information available.

10 Stability and reactivity

Reactivity: No further relevant information available.

Chemical stability

Thermal decomposition / conditions to be avoided:
No decomposition if used and stored according to specifications.

Possibility of hazardous reactions: No dangerous reactions known.

(Contd. on page 5)
Safety Data Sheet
according to HPR, Schedule 1

Trade name: PANAVIA ETCHING AGENT V

- **Conditions to avoid** No further relevant information available.
- **Incompatible materials**: No further relevant information available.
- **Hazardous decomposition products**: Carbon monoxide and carbon dioxide

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### 11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity**:
    - **LD/LC50 values that are relevant for classification**:
      
      | 7664-38-2 phosphoric acid |
      |--------------------------|
      | Oral         | LD50    | 1250 mg/kg (mouse) |
      |              |        | 1250 mg/kg (rat)   |
      | Dermal       | LD50    | 2740 mg/kg (rabbit) |

  - **Primary irritant effect**:
    - **on the skin**: Caustic effect on skin and mucous membranes.
    - **on the eye**: Strong caustic effect.
    - **Sensitization**: No sensitizing effects known.

- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)** None of the ingredients is listed.
  - **NTP (National Toxicology Program)** None of the ingredients is listed.

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### 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.
      - Must not reach bodies of water or drainage ditch undiluted or unneutralized.
      - 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.

- **Results of PBT and vPvB assessment**
  - **PBT**: Not applicable.
  - **vPvB**: Not applicable.
  - **Other adverse effects**: No further relevant information available.

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### 13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation**:
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
14 Transport information

- **UN-Number**
  - DOT/TDG: UN1805
  - ADR, IMDG, IATA: 1805

- **UN proper shipping name**
  - DOT/TDG: Phosphoric acid solution
  - ADR: 1805 Phosphoric acid solution
  - IMDG, IATA: PHOSPHORIC ACID, SOLUTION

- **Transport hazard class(es)**
  - DOT/TDG (Transport dangerous goods):
    - **Class**: 8 Corrosive substances
    - **Label**: 8
  - ADR, IMDG, IATA
    - **Class**: 8 Corrosive substances
    - **Label**: 8
  - **Packing group**: DOT/TDG, ADR, IMDG, IATA
    - **Class**: III
  - **Environmental hazards**: None
  - **Marine pollutant**: No
  - **Special precautions for user**
    - **Danger code (Kemler)**: Warning: Corrosive substances, 80
    - **EMS Number**: F-A,S-B
  - **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**: Not applicable.
  - **UN "Model Regulation"**: UN1805, Phosphoric acid solution, 8, III

15 Regulatory information

- **Sara**
  - **Section 355 (extremely hazardous substances)**: None of the ingredient is listed.
  - **Section 313 (Specific toxic chemical listings)**: 7664-38-2 phosphoric acid
  - **SARA 311/312**: See Section 2 for the information on physical and health hazards.
<table>
<thead>
<tr>
<th>16 Other information</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
<tr>
<td>* Data compared to the previous version altered.</td>
</tr>
</tbody>
</table>

- **Canadian substance listings:**
  - **Canadian Domestic Substances List (DSL)**
    - All ingredients are listed.
  - **Canadian Ingredient Disclosure list (limit 0.1%)**
    - None of the ingredients is listed.
  - **Canadian Ingredient Disclosure list (limit 1%)**
    - 7664-38-2 phosphoric acid