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

- 1.1 Product identifier
  - Trade name: GC ETCHANT

- 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:
    GC EUROPE N.V.
    Interleuvenlaan 33
    B-3001 Leuven
    Tel. +32/(0)16/74.10.00
    Fax +32/(0)16/40.26.84
    msds@gc.dental

- 1.4 Emergency telephone number:
  - National poison center for United Kingdom of Great Britain and Northern Ireland:
    Belfast: +44 28 90 63 2032
    Birmingham: +44 121 507 4123
    Edinburgh: +44 131 242 1383
    Newcastle Upon Tyne: +44 191 2606182/+44 191 2606180
    Penarth: +44 292 071 55 54

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
  - Classification according to Regulation (EC) No 1272/2008
    Exempt from requirements - product regulated as a medical device or an in vitro diagnostic medical device.
    Skin Corr. 1B 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
    Exempt from requirements - product regulated as a medical device or an in vitro diagnostic medical device.
    The product is classified and labelled according to the CLP regulation.
  - Hazard pictograms
    - GHS05

- Signal word Danger

- Hazard-determining components of labelling:
  - phosphoric acid

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

(Contd. on page 2)
Safety data sheet
according to 1907/2006/EC, Article 31

Trade name: GC ETCHANT

Precautionary statements

P260 Do not breathe dusts or mists.
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].
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).
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures
Description:
Only substances required to be mentioned according to Annex II of regulation 1907/2006 are listed. Information on the other substances that may be present can be obtained upon request.

Dangerous components:

| CAS: 7664-38-2 | phosphoric acid | Skin Corr. 1B, H314 | 25-%50% |
| EINECS: 231-633-2 | | |
| Index number: 015-011-00-6 | | |

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.
If symptoms persist consult doctor.

After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
Take affected persons into fresh air and keep quiet.

After skin contact:
Immediately wash with water and soap and rinse thoroughly.
Seek medical treatment.
If skin irritation continues, consult a doctor.

After eye contact:
Protect unharmed eye.
Rinse opened eye for several minutes under running water.
Call a doctor immediately.

After swallowing:
Rinse out mouth and then drink plenty of water.
If symptoms persist consult doctor.

Most important symptoms and effects, both acute and delayed
No further relevant information available.

(Contd. on page 3)
SECTION 5: Firefighting measures

- 5.1 Extinguishing media
  - Suitable extinguishing agents:
    CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
    Use fire extinguishing methods suitable to surrounding conditions.
  - For safety reasons unsuitable extinguishing agents: Water with full jet

- 5.2 Special hazards arising from the substance or mixture
  Formation of toxic gases is possible during heating or in case of fire.

- 5.3 Advice for firefighters
  - Protective equipment: Wear self-contained respiratory protective device.
  - Additional information
    Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
  Remove persons from danger area.
  Avoid contact with the eyes and skin.
  Wear protective clothing.

- 6.2 Environmental precautions:
  Do not allow product to reach sewage system or any water course.
  Inform respective authorities in case of seepage into water course or sewage system.
  Do not allow to penetrate the ground/soil.
  In case of seepage into the ground inform responsible authorities.

- 6.3 Methods and material for containment and cleaning up:
  Use neutralising agent.
  Absorb liquid components with liquid-binding material.
  Dispose of the material collected according to regulations.

- 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
  Ensure good ventilation/exhaustion at the workplace.
  Prevent formation of aerosols.
  Avoid contact with the eyes and skin.
  **Information about fire - and explosion protection:** No special measures required.

- 7.2 Conditions for safe storage, including any incompatibilities
  - Storage:
    - Requirements to be met by storerooms and receptacles: Store only in unopened original receptacles.
    - Information about storage in one common storage facility: Store away from foodstuffs.
    - Further information about storage conditions: Keep container tightly sealed.
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:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>WEL Short-term value</th>
<th>Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>7664-38-2 phosphoric acid</td>
<td>2 mg/m³</td>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>

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

- 8.2 Exposure controls

- Personal protective equipment:

- General protective and hygienic measures:
  - The usual precautionary measures are to be adhered to when handling chemicals.
  - Avoid contact with the eyes and skin.
  - Wash hands before breaks and at the end of work.
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing

- Respiratory protection: Suitable respiratory protective device recommended.

- Protection of hands:

  Protective gloves

- 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 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

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

  - General Information

  - Appearance:
    - Form: Highly viscous
    - Colour: Blue
    - Odour: Odourless
    - Odour threshold: Not determined.
Trade name: GC ETCHANT

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH-value at 20 °C</td>
<td>&lt; 1.6</td>
</tr>
<tr>
<td>Change in condition</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Undetermined</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>100 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>Undetermined</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Product is not selfigniting</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Product does not present an explosion hazard</td>
</tr>
<tr>
<td>Explosion limits</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>Not determined</td>
</tr>
<tr>
<td>Upper</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Density at 20 °C</td>
<td>1.33 g/cm³</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water</td>
<td>Fully miscible</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not determined</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Not determined</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not determined</td>
</tr>
<tr>
<td>Solvent content</td>
<td></td>
</tr>
<tr>
<td>Organic solvents</td>
<td>0.0 %</td>
</tr>
<tr>
<td>Water</td>
<td>49.0 %</td>
</tr>
<tr>
<td>VOC (EC)</td>
<td>0.0 g/l</td>
</tr>
</tbody>
</table>

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

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  
No dangerous decomposition products known.
SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity: Based on available data, the classification criteria are not met.
- LD/LC50 values relevant for classification: No further relevant information available.
- Primary irritant effect:
  - Skin corrosion/irritation
    Causes severe skin burns and eye damage.
  - Serious eye damage/irritation
    Causes serious eye damage.
  - Respiratory or skin sensitisation
    Based on available data, the classification criteria are not met.
- Repeated dose toxicity
  No further relevant information available.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
  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.
- 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:
  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.
  Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
  Do not allow product to reach ground water, water course or sewage system.
  Danger to drinking water if even small quantities leak into the ground.
- 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
  Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging:
  Recommendation: Disposal must be made according to official regulations.
· Recommended cleansing agents: Water, if necessary together with cleansing agents.

---

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
  PHOSPHORIC ACID, SOLUTION mixture
  · IATA
  Phosphoric acid solution mixture

· 14.3 Transport hazard class(es)
  · ADR
  Cl (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
  · Danger code (Kemler):
  Warning: Corrosive substances.
  80
  · EMS Number:
  F-A-S-B
  · Segregation groups:
  Acids
  · Stowage Category:
  A

· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
  Not applicable.

· Transport/Additional information:
  · ADR
  · Limited quantities (LQ)
    5L
  · Excepted quantities (EQ)
    Code: E1
    Maximum net quantity per inner packaging: 30 ml
    Maximum net quantity per outer packaging: 1000 ml
  · Transport category
    3
  · Tunnel restriction code
    E

(Contd. on page 8)
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 02.08.2018
Version number 1
Revision: 22.03.2016

Trade name: GC ETCHANT

· IMDG
· Limited quantities (LQ): 5L
· Code: E1
· Maximum net quantity per inner packaging: 30 ml
· Excepted quantities (EQ): Code: E1
· Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation": UN 1805 PHOSPHORIC ACID, SOLUTION MIXTURE, 8, III

SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
· Directive 2012/18/EU
· Named dangerous substances - ANNEX I None of the ingredients is listed.
· 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

· Relevant phrases
  H314 Causes severe skin burns and eye damage.
· Classification according to Regulation (EC) No 1272/2008 Calculation method
· Department issuing SDS: Regulatory affairs
· Contact: msds@gc.dental
· 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)
  VOC: Volatile Organic Compounds (USA, EU)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  Skin Corr. 1B: Skin corrosion/irritation – Category 1B
  Eye Dam. 1: Serious eye damage/eye irritation – Category 1
· Sources
  • ECHA (http://echa.europa.eu/)
  • EnviChem (www.echemportal.org)
· * Data compared to the previous version altered.
  This version replaces all previous versions.

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