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

- **Product identifier**
  - **Trade name:** Opalustre™
  - **Article number:** 55403
  - **Index number:** SDS 84-001.12
  - **Relevant identified uses of the substance or mixture and uses advised against**
    Professional Dental Abrasive Material

- **Application of the substance / the mixture**
  Professional Dental Abrasive Material

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    Ultradent Products Inc.
    505 W. Ultradent Drive (10200 S)
    South Jordan, UT 84095-3942
    USA
    onlineordersupport@utradent.com
  - **EC Responsible Person**
    Ultradent Products GmbH
    Am Westhover Berg 30
    51149 Cologne Germany
    Email: infoDe@utradent.com
    Emergency Phone: +49(0)2203-35-92-0
  - **Further information obtainable from:**
    Customer Service
  - **Emergency telephone number:**
    CHEMTREC (NORTH AMERICA) : (800) 424-9300
    (INTERNATIONAL) : +(703) 527-3887

2 Hazards identification

- **Classification of the substance or mixture**
  - **Classification according to Regulation (EC) No 1272/2008**
    - **GHS05 corrosion**
    
    Skin Corr. 1B  H314  Causes severe skin burns and eye damage.
    Eye Dam. 1   H318  Causes serious eye damage.

- **Label elements**
  - **Labelling according to Regulation (EC) No 1272/2008**
    The Regulation EC 1272/2008 on classification, labeling and packaging of substances and mixtures (CLP) shall not apply to a medical device in the finished state used in direct physical contact with the human body according to Art. 1.5 (d). Therefore, the product is exempted from the CLP labeling requirements, and no SDS is required by Regulation 1907/2006, Art. 2 (6c), REACH. Therefore, all given data, classification, and information on this SDS are provided solely on a voluntary basis.
  - **Hazard pictograms**
    GHS05
  - **Signal word**
    Danger
  - **Hazard-determining components of labelling:**
    Hydrochloric Acid
  - **Hazard statements**
    H314 Causes severe skin burns and eye damage.
Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P303+P361+P353 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.
P321 Specific treatment (see on this label).
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterisation: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

<table>
<thead>
<tr>
<th>CAS: 409-21-2</th>
<th>Silicon Carbide</th>
<th>substance with a Community workplace exposure limit</th>
<th>&gt;25-%45%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 206-991-8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 7647-01-0</td>
<td>Hydrochloric Acid</td>
<td>Skin Corr. 1B, H314; STOT SE 3, H335</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>EINECS: 231-595-7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimethicone</td>
<td>Repr. 2, H361f; STOT RE 2, H373</td>
<td></td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

Additional information: For the wording of the listed hazard phrases refer to section 16.

4 First aid measures

Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

After inhalation:

This product is a thick paste, therefore inhalation is extremely unlikely.
Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical attention if irritation or coughing persists.
In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

If skin irritation continues, consult a doctor.
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 plenty of water and provide fresh air. Call for a doctor immediately.
Do not induce vomiting; call for medical help immediately.

Information for doctor:

Most important symptoms and effects, both acute and delayed

Inhalation may cause irritation to nose and upper respiratory tract, ulceration, coughing, chest tightness and shortness of breath. Higher concentrations cause tachypnoea, pulmonary oedema and suffocation. Ingestion may cause corrosion of lips, mouth, oesophagus and stomach, dysphagia and vomiting. Pain, eye ulceration, conjunctival irritation, cataracts and glaucoma may occur following eye exposure. Erythema and skin irritation, as
well as chemical burns to skin and mucous membranes may arise following skin exposure. Potential sequelae following ingestion of hydrochloric acid include perforation, scarring of the oesophagus or stomach and stricture formation causing dysphagia or gastric outlet obstruction. In some cases, RADS may develop. Respiratory symptoms may take up to 36 hours to develop. Symptoms of burning sensation, cough, wheezing, laryngitis, shortness of breath, spasm, inflammation, edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

- Indication of any immediate medical attention and special treatment needed
  Provide SDS to Physician. Physician should treat symptomatically.

### 5 Firefighting measures

- Extinguishing media
- Suitable extinguishing agents:
  - Carbon dioxide
  - Alcohol resistant foam
  - Foam
  - Water
  Use fire extinguishing methods suitable to surrounding conditions.

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

- Advice for firefighters:
- Protective equipment:
  Wear self-contained respiratory protective device.
  Wear fully protective suit.
  Mouth respiratory protective device.

### 6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Mount respiratory protective device.
  Wear protective equipment. Keep unprotected persons away.

- Environmental precautions: Do not allow to enter sewers/ surface or ground water.

- Methods and material for containment and cleaning up:
  Dispose of the material collected according to regulations.
  If necessary use trained response staff or contractor.
  Evacuate personnel to safe areas.
  Send for recovery or disposal in suitable receptacles.
  Cover spill with soda ash or calcium carbonate. Mix and add water to form slurry. Wear personal protective equipment. Refer to Section 8

- 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:
  Follow good hygiene procedures when handling chemicals. Refer to Section 8.

(Contd. on page 4)
Follow proper disposal methods. Refer to Section 13. 
Do not eat or drink 
Do not smoke. 
Avoid contact with eyes, skin, and clothing. 
Never use hot water and never add water to the acid. Do not allow contact between hydrochloric acid, metal, and organics. 
Avoid splashes or spray in enclosed areas. 
Ensure good ventilation/exhaustion at the workplace. 
Prevent formation of aerosols. 

· **Information about fire - and explosion protection:** Keep respiratory protective device available. 

· **Conditions for safe storage, including any incompatibilities** 

· **Storage:** 
  · **Requirements to be met by storerooms and receptacles:** 
    Protect from freezing and physical damage. 
    Provide ventilation for receptacles. 
    Store in a cool location. 

· **Information about storage in one common storage facility:** Store away from foodstuffs. 

· **Further information about storage conditions:** 
  Containers for hydrochloric acid must be made from corrosion resistant materials: glass, polyethylene, polypropylene, polyvinyl chloride, carbon steel lined with rubber or ebonite. 
  Store in a cool place. 
  See product labelling. 
  Keep container tightly sealed. 

· **Specific end use(s)**  
  Professional Dental Abrasive Material 

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### 8 Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7. 

· **Control parameters** 

· **Ingredients with limit values that require monitoring at the workplace:** 

<table>
<thead>
<tr>
<th>Compound</th>
<th>WEL (Great Britain)</th>
<th>Long-term value: 10* 4** mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>409-21-2 Silicon Carbide</td>
<td></td>
<td>*total inhalable **respirable</td>
</tr>
<tr>
<td>7647-01-0 Hydrochloric Acid</td>
<td></td>
<td>Short-term value: 8 mg/m³, 5 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term value: 2 mg/m³, 1 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(gas and aerosol mists)</td>
</tr>
</tbody>
</table>

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

· **Exposure controls** 

· **Personal protective equipment:** 

· **General protective and hygienic measures:** 
  Keep away from foodstuffs, beverages and feed. 
  Immediately remove all soiled and contaminated clothing. 
  Wash hands before breaks and at the end of work. 
  Avoid contact with the eyes. 
  Avoid contact with the eyes and skin. 

· **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. 

(Contd. on page 5)
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

Material of gloves

The selection of 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**

Body protection: Full head, face and neck protection

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:**
    - Form: Paste
    - Colour: Violet
  - **Odour:** Not Applicable
  - **Odour threshold:** Not determined.
  - **pH-value at 20 °C:** <1

- **Change in condition**
  - Melting point/freezing point: Undetermined.
  - Initial boiling point and boiling range: Undetermined.

- **Flash point:** Not applicable.
- **Flammability (solid, gas):** Not applicable.
- **Decomposition temperature:** Not determined.

- **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:** 1.561 g/cm³
### 48.0 Relative density
Not determined.

### 48.1 Vapour density
Not determined.

### 48.2 Evaporation rate
Not determined.

### 48.3 Solubility in / Miscibility with water
Not miscible or difficult to mix.

### 48.4 Partition coefficient: n-octanol/water
Not determined.

### 48.5 Viscosity:
- Dynamic: Not determined.
- Kinematic: Not determined.

### 48.6 Solvent content:
- Water: < 40 %
- VOC (EC): 0.00 %

### 48.7 Solids content: < 50 %

### 48.8 Other information
No further relevant information available.

### 10 Stability and reactivity

#### Reactivity
Reacts violently with bases and is corrosive.

#### Chemical stability

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:**
  - Attacks many metals in the presence of water forming flammable explosive gas (hydrogen). Reacts violently with oxidants forming toxic gas (chlorine).
- **Conditions to avoid:** Incompatible materials
  - Bases
  - Amines
  - Alkali metals
  - Metals
  - Permanganates (Potassium Permanganate)
  - Fluorine
  - Metal acetylides
  - Hexalithium disilicide

#### Hazardous decomposition products:
- Carbon monoxide and carbon dioxide
- Hydrogen chloride (HCl)

### 11 Toxicological information

#### Information on toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.

#### LD/LC50 values relevant for classification:

<table>
<thead>
<tr>
<th>ATE (Acute Toxicity Estimates)</th>
<th>Oral LD50</th>
<th>Inhalative LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>7647-01-0 Hydrochloric Acid</td>
<td>13,158-13,889 mg/kg</td>
<td>3.04 mg/l (rat)</td>
</tr>
</tbody>
</table>

| Oral LD50 | 900 mg/kg (rabbit) | (Contd. on page 7) |
· 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.
· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
· 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.

12 Ecological information

· Toxicity
· Aquatic toxicity: No further relevant information available.
· Persistence and degradability No further relevant information available.
· Behaviour 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 (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.
· 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 Do not allow product to reach sewage system.
· European waste catalogue
· HP 8 Corrosive
· Uncleaned packaging:
· Recommendation: Disposal must be made according to official regulations.

14 Transport information

· UN-Number UN3264
· ADR, IMDG, IATA
| · UN proper shipping name | 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydrochloric Acid) mixture |
| · ADR | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydrochloric Acid), mixture |
| · IMDG | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydrochloric Acid) mixture |
| · IATA |  |

| · Transport hazard class(es) | ADR, IMDG, IATA |
| · Class | 8 Corrosive substances. |
| · Label | 8 |

| · Packing group | ADR, IMDG, IATA |
| · Packing group | III |

| · Environmental hazards: | Not applicable. |

| · Special precautions for user | Warning: Corrosive substances. |
| · Danger code (Kemler): | 80 |
| · EMS Number: | F-A,S-B |
| · Segregation groups | Acids |
| · Stowage Category | A |
| · Stowage Code | SW2 Clear of living quarters. |

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

| · Transport/Additional information: |  |
| · ADR |  |
| · Limited quantities (LQ) | 5L |
| · Exempted 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 |

| · IMDG |  |
| · Limited quantities (LQ) | 5L |
| · Exempted quantities (EQ) | Code: E1 |
| Maximum net quantity per inner packaging: 30 ml |
| Maximum net quantity per outer packaging: 1000 ml |

| · UN "Model Regulation": | UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydrochloric Acid) MIXTURE, 8, III |
15 Regulatory information

- 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
  - Chemical safety assessment:
    Device is a strong acid and is extremely toxic. It is to be used only as directed with PPE, and only by licensed
dental professionals.

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.
  H335 May cause respiratory irritation.
  H361f Suspected of damaging fertility.
  H373 May cause damage to organs through prolonged or repeated exposure.

- Department issuing SDS: Regulatory Affairs
- Contact: Customer Service
- 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
  Repr. 2: Reproductive toxicity – Category 2
  STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
  STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2