## Safety Data Sheet according to WHS Regulations

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## 1 Identification

- Product identifier
- Trade name: Opalustre ${ }^{\mathrm{TM}}$
- Article number: SDS 84-001.14R01, 55403
- 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
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Ultradent Australia Pty Ltd.
Level 22/2 Market Street
Sydney NSW 2000
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Email:info.anz@ultradent.com
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- Further information obtainable from: Customer Service

Emergency telephone number:
CHEMTREC (NORTH AMERICA) :(800) 424-9300
(INTERNATIONAL) : +(703) 527-3887

## 2 Hazard(s) Identification

- Classification of the substance or mixture
health hazard

Carc. 1B H350i May cause cancer by inhalation.

Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. $1 \quad H 318$ Causes serious eye damage.

- Label elements
- GHS label elements Void
- Hazard pictograms GHS05, GHS08
- Signal word Danger
- Hazard-determining components of labelling:

Silicon Carbide
Hydrochloric Acid

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## Hazard statements

H314 Causes severe skin burns and eye damage.
H350i May cause cancer by inhalation.

- 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.
P260 Do not breathe dusts or mists.
P303+P361+P353 IF ON SKIN (or hair): Remove/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.

## 3 Composition and Information on Ingredients

## Chemical characterisation: Mixtures

- Description: Mixture of substances listed below with nonhazardous additions.

| - Dangerous components: |  |  |
| :---: | :---: | :---: |
| 409-21-2 | Silicon Carbide | $>30-<50 \%$ |
|  | (3) Carc. 1B, H350i |  |
| 7647-01-0 | Hydrochloric Acid | $>1-<10 \%$ |
|  | $\therefore$ Skin Corr. 1B, H314; Eye Dam. 1, H318; «!> Acute Tox. 4, H302; STOT SE 3, H335 |  |
|  | Dimethicone | <1\% |
|  | (3) Repr. 2, H361f; STOT RE 2, H373 |  |

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


## 4 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.
- 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, conjuctival irritation, cataracts and glaucoma may occur following eye exposure. Erythema and skin irritation, as well as chemcal burns to skin and mucos membranes may arise following skin exposure. Potential sequelae following ingestion of hydrochloric acid include perforation, scarring of the oesophagus or stomach and stricture

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formation causing dysphagia or gastric outlet obstrucion. 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 Fire Fighting Measures

- 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.

- 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:

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
Use neutralising agent.
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:

Follow good hygiene procedures when handling chemicals. Refer to Section 8.
Follow proper disposal methods. Refer to Section 13.
Do not eat or drink

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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.
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.

- Information about fire - and explosion protection: Keep respiratory protective device available.
- Storage:
- Requirements to be met by storerooms and receptacles:

Protect from freezing and physical damage.
Provide ventilation for receptacles.

- 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


## 8 Exposure controls and personal protection

- Additional information about design of technical facilities: No further data; see item 7.
$\cdot$ Ingredients with limit values that require monitoring at the workplace:
409-21-2 Silicon Carbide
WES $\mid$ Long-term value: $10 \mathrm{mg} / \mathrm{m}^{3}$
inhalable dust
7647-01-0 Hydrochloric Acid
WES $\mid$ Peak limitation: $7.5 \mathrm{mg} / \mathrm{m}^{3}, 5 \mathrm{ppm}$
$\cdot$ Additional information: The lists valid during the making were used as basis.
- 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.
Store protective clothing separately.
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.

- 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.

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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 can not 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

- General Information
- Appearance:
- Form: Paste
- Colour: Purple
- Odour: Not Applicable
- Odour threshold: Not determined.
- $\mathbf{p H}$-value at $20^{\circ} \mathrm{C}$ : $<1$
- Change in condition
- Melting point/freezing point: Undetermined.
- Initial boiling point and boiling range: Undetermined.
- Flash point:

Not applicable.

- Flammability (solid, gas):
- Decomposition temperature:

Not determined.

- Auto-ignition temperature: Product is not selfigniting.
- Explosive properties: Product does not present an explosion hazard.
- Explosion limits:
- Lower: Not determined.
- Upper: Not determined.
- Vapour pressure: Not applicable.
- Density at $20^{\circ} \mathrm{C}: \quad 1.561 \mathrm{~g} / \mathrm{cm}^{3}$
- Relative density Not determined.
- Vapour density Not applicable.
- Evaporation rate Not applicable.
- Solubility in / Miscibility with
- water:

Insoluble.

- Partition coefficient: n-octanol/water: Not determined.
- Viscosity:
- Dynamic: Not applicable.
- Kinematic: Not applicable.
- Other information No further relevant information available.


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## 10 Stability and Reactivity

- Reactivity Reacts violently with bases and is corrosive.
- 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 wiith oxidants forming toxic gas (chlorine).

- Conditions to avoid: Incompatible materials
- 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: |  |  |
| :---: | :---: | :---: |
| ATE (Acute Toxicity Estimates) |  |  |
| Oral | LD50 | 13,158-13,889 mg/kg |
| 7647-01-0 Hydrochloric Acid |  |  |
| Oral | LD50 | $900 \mathrm{mg} / \mathrm{kg}$ (rabbit) |

- 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.
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity May cause cancer by inhalation.
- 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.


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- 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 pHvalue 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 $v P v B$ assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- Other adverse effects No further relevant information available.


## 13 Disposal considerations

- Waste treatment methods
- Recommendation

Dispose of contents/container in accordance with international, federal, state, and local regulations.

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


## 14 Transport information

| UN-Number <br> - ADG, IMDG, IATA | UN3261 |
| :---: | :---: |
| - UN proper shipping name $\cdot A D G$ $\cdot I M D G, I A T A$ | 3261 CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (HYDROCHLORIC ACID) CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (HYDROCHLORIC ACID) |
| - Transport hazard class(es) <br> - ADG, IMDG, IATA <br> - Class <br> - Label | 8 Corrosive substances. 8 |
| - Packing group <br> - ADG, IMDG, IATA | II |
| - Environmental hazards: | Not applicable. |
| - Special precautions for user <br> - Hazard identification number (Kemler code): <br> - EMS Number: <br> - Segregation groups <br> - Stowage Category | Warning: Corrosive substances. <br> 80 <br> $F-A, S-B$ <br> (SGG1) Acids <br> B |

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| :---: | :---: |
| - Segregation Code | SG36 Stow "separated from" SGG18-alkalis. SG49 Stow "separated from" SGG6-cyanides |
| Transport in bulk according to Annex II of Marpol and the IBC Code <br> Not applicable. |  |
| - Transport/Additional information: |  |
| - ADG <br> - Limited quantities (LQ) <br> - Excepted quantities (EQ) <br> - Transport category <br> - Tunnel restriction code | 1 kg <br> Code: E2 <br> Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g 2 <br> E |
| $\cdot$ IMDG  <br> $\cdot$ Limited quantities $(\mathbf{L Q})$ 1 kg <br> $\cdot$ Excepted quantities $($ EQ $)$ Code: E2 <br>  Maximum net quantity per inner packaging: 30 g <br>  Maximum net quantity per outer packaging: 500 g |  |
| - UN "Model Regulation": | UN 3261 CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (HYDROCHLORIC ACID), 8, II |

## 15 Regulatory information

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

| $\cdot$ Australian Inventory of Industrial Chemicals |  |
| ---: | ---: |
| $409-21-2$ | Silicon Carbide |
| $7732-18-5$ | Water |
| $25322-68-3$ | Polyethylene Glycol |
| $7647-01-0$ | Hydrochloric Acid |
|  | Trade Secret |


| $\cdot$ Standard for the Uniform Scheduling of Medicines and Poisons |  |  |
| :--- | :--- | :--- |
| $7647-01-0$ | Hydrochloric Acid | S5, S6 |

- Australia: Priority Existing Chemicals

None of the ingredients is listed.

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.


## - National regulations:

## - Information about limitation of use:

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

- 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.

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## 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 from Section 3

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H350i May cause cancer by inhalation.
H361f Suspected of damaging fertility.
H373 May cause damage to organs through prolonged or repeated exposure.

- Department issuing SDS: Environmental, Health, and Safety
- Contact: Customer Service
- Abbreviations and acronyms:

ADR: Accord relatif au transport international 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
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
PBT: Persistent, Bioaccumulative and Toxic
$v P v$ : very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity - Category 4
Skin Corr. 1B: Skin corrosion/irritation - Category $1 B$
Eye Dam. 1: Serious eye damageleye irritation - Category 1
Carc. 1B: Carcinogenicity - Category 1B
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
. * Data compared to the previous version altered.

