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## Ultrasonic dental plaque cleaner

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

- 1.1 Product identifier**  
Tradename: Ultrasonic dental plaque cleaner
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Relevant identified uses: Cleaning agent  
Uses advised against: None known.
- 1.3 Details of the supplier of the safety data sheet**  
Manufacturer/Supplier: ERNST HINRICHS Dental GmbH  
Street / mailbox: Borsigstr. 1  
Country code. / postal code / city: D - 38644 Goslar  
Phone: 0 53 21 / 5 06 24  
Fax: 0 53 21 / 5 08 81  
E-mail / Website: [info@hinrichs-dental.de](mailto:info@hinrichs-dental.de) / [www.hinrichs-dental.de](http://www.hinrichs-dental.de)  
Further information obtainable from: ERNST HINRICHS Dental GmbH
- 1.4 Emergency telephone number**  
ERNST HINRICHS Dental GmbH: +49 (0) 53 21 / 5 06 24 (Mon-Fri. 8 a.m. – 4 p.m.)

### SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture:** Skin Corr. 1B: H314 Causes severe skin burns and eye damage.  
Eye Dam. 1: H318 Causes serious eye damage.  
Met. Corr. 1: H290 May be corrosive to metals.

- 2.2 Label elements**  
Hazard pictograms:



- Signal word:** Danger
- Contains:** Phosphoric acid

**Hazard statements:**

- H314 Causes severe skin burns and eye damage.  
H290 May be corrosive to metals.

**Precautionary statements:**

- P260 Do not breathe spray.  
P280 Wear protective gloves / protective clothing / eye protection / face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P310 Immediately call a POISON CENTER / doctor.  
P390 Absorb spillage to prevent material damage.  
P405 Store locked up.  
P501 Dispose of contents / container to in accordance with local / national regulation.

- Cleaner, 648/2004/CE, contains:** < 5% non-ionic surfactants



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### 2.3 Other hazards

<b>Human health dangers:</b>	Contains no ingredients with endocrine-disrupting properties.
<b>Environmental hazards:</b>	Does not contain any PBT or vPvB substances.
<b>Other hazards:</b>	Further hazards were not determined with the current level of knowledge.

## SECTION 3: Composition/information on ingredients

3.1 Substances: not applicable

3.2 Mixtures: The product is a mixture.

Range [%]	Substance
30 - 40	Phosphoric acid
	CAS: 7664-38-2, EINECS/ELINCS: 231-633-2, EU-INDEX: 015-011-00-6, Reg-No.: 01-2119485924-24-XXXX
	GHS/CLP: Met. Corr. 1: H290 - Skin Corr. 1B: H314
	SCL [%]: >=10 - <25: Eye Irrit. 2: H319, >=10 - <25: Skin Irrit. 2: H315, >= 25: Skin Corr. 1B: H314

**Comment on component parts:** Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%. For full text of H-statements: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

<b>General information:</b>	Take off contaminated clothing and wash before reuse.
<b>After inhalation:</b>	Remove the victim into fresh air and keep him calm. In the event of symptoms seek medical treatment.
<b>After skin contact:</b>	In case of contact with skin wash off immediately with soap and water. Immediate medical treatment necessary, as untreated burns can result in slow-healing wounds.
<b>After eye contact:</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a doctor immediately.
<b>After swallowing:</b>	Consult a doctor immediately. Do not induce vomiting. Rinse out mouth and give plenty of water to drink.
<b>4.2 Most important symptoms and effects, both acute and delayed:</b>	Product is caustic.
<b>4.3 Indication of any immediate medical attention and special treatment needed:</b>	Treat symptomatically. If swallowed or in the event of vomiting, risk of product entering the lungs.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing agents:** Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered.



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<b>For safety reasons unsuitable extinguishing agents:</b>	Full water jet.
<b>5.2 Special hazards arising from the substance or mixture:</b>	Risk of formation of toxic pyrolysis products.
<b>5.3 Advice for firefighters</b>	Use self-contained breathing apparatus. Wear full protective suit. Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

**SECTION 6: Accidental release measures**

<b>6.1 Personal precautions, protective equipment and emergency procedures:</b>	Ensure adequate ventilation. High risk of slipping due to leakage/spillage of product. Use personal protective equipment (protective gloves, safety glasses, protective clothing).
<b>6.2 Environmental precautions:</b>	Do not discharge into the drains/surface waters/groundwater. Prevent spread over a wide area (e.g. by containment or oil barriers).
<b>6.3 Methods and material for containment and cleaning up:</b>	Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous earth). Dispose of absorbed material in accordance within the regulations.
<b>6.4 Reference to other sections:</b>	See Section 8 and 13.

**SECTION 7: Handling and storage**

<b>7.1 Precautions for safe handling Information about protection against explosions and fires:</b>	Use only in well-ventilated areas. The normal safety precautions for handling chemicals must be observed. Do not eat, drink, smoke or take drugs at work. Use barrier skin cream. After worktime and before work breaks the affected skin areas must be thoroughly cleaned. Take off contaminated clothing and wash before reuse
<b>7.2 Conditions for safe storage, including any incompatibilities</b>	Keep only in original container. Prevent penetration into the ground. Do not store together with food and animal food/diet. Do not store with alkalies. Keep container tightly closed. Keep container in a well-ventilated place. Keep away from frost. Protect from heat/overheating.
<b>7.3 Specific end use(s)</b>	See product use, SECTION 1.2

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters  
Ingredients with occupational exposure limits to be monitored (EU)**

<b>Substance / EC LIMIT VALUES</b>
<b>Phosphoric acid</b>
CAS: 7664-38-2, EINECS/ELINCS: 231-633-2, EU-INDEX: 015-011-00-6, Reg-No.: 01-2119485924-24-XXXX



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Eight hours: 1 mg/m <sup>3</sup>
Short-term (15-minute): 2 mg/m <sup>3</sup>

**DNEL**

<b>Substance</b>
<b>Phosphoric acid, CAS: 7664-38-2</b>
Industrial, inhalative, Acute - local effects, 2 mg/m <sup>3</sup>
Industrial, inhalative, Long-term - local effects, 1 mg/m <sup>3</sup>
Industrial, inhalative, Long-term - systemic effects, 10.7 mg/m <sup>3</sup>
general population, oral, Long-term - systemic effects, 0.1 mg/kg bw/day
general population, inhalative, Long-term - local effects, 0.36 mg/m <sup>3</sup>
general population, inhalative, Long-term - systemic effects, 4.57 mg/m <sup>3</sup>

**PNEC**

<b>Substance</b>
<b>Phosphoric acid, CAS: 7664-38-2</b>
There are no PNEC values established for the substance.

<b>8.2 Exposure controls:</b>	
<b>Additional advice on system design:</b>	Ensure adequate ventilation on workstation.
<b>Eye protection:</b>	Tightly fitting goggles. ((EN 166:2001).
<b>Hand protection:</b>	0.4mm Butyl rubber, >480 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
<b>Skin protection:</b>	Protective clothing (EN 340)
<b>Other:</b>	Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier. Do not inhale aerosols.
<b>Respiratory protection:</b>	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, filter P2. (DIN EN 143)
<b>Thermal hazards:</b>	None.
<b>Delimitation and monitoring of the environmental exposition:</b>	Protect the environment by applying appropriate control measures to prevent or limit emissions.

**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

<b>Physical state:</b>	liquid
<b>Form:</b>	liquid
<b>Colour:</b>	red
<b>Odour:</b>	characteristic
<b>Odour threshold:</b>	not relevant
<b>pH:</b>	0.2 - 1
<b>pH-value [1%]</b>	not determined



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<b>Boiling point [°C]:</b>	not determined
<b>Flash point [°C]:</b>	not applicable
<b>Flammability:</b>	not applicable
<b>Lower explosion limit:</b>	not applicable
<b>Upper explosion limit:</b>	not applicable
<b>Oxidising properties:</b>	no
<b>Vapour pressure/gas pressure [kPa]:</b>	not determined
<b>Density [g/cm³]:</b>	1.19 - 1.22 (20 °C / 68,0 °F)
<b>Relative density:</b>	not determined
<b>Bulk density [kg/m³]:</b>	not applicable
<b>Solubility in water:</b>	completely miscible
<b>Solubility other solvents:</b>	not relevant
<b>Partition coefficient [n-octanol/water]:</b>	not determined
<b>Kinematic viscosity:</b>	not relevant
<b>Relative vapour density:</b>	not relevant
<b>Evaporation speed:</b>	not relevant
<b>Melting point [°C]:</b>	not determined
<b>Auto-ignition temperature [°C]:</b>	not self-igniting
<b>Decomposition temperature [°C]:</b>	not determined
<b>Particle characteristics:</b>	not applicable

9.2 Other information: none

**SECTION 10: Stability and reactivity**

<b>10.1 Reactivity:</b>	No dangerous reactions known if used as directed.
<b>10.2 Chemical stability:</b>	The product is stable under standard conditions.
<b>10.3 Possibility of hazardous reactions:</b>	Reactions with alkalis (lyes). Reactions with light metals, with evolution of hydrogen.
<b>10.4 Conditions to avoid:</b>	Heating
<b>10.5 Incompatible materials:</b>	Alkalies
<b>10.6 Hazardous decomposition products:</b>	No hazardous decomposition products known.

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Acute toxicity:**

**Product**

ATE-mix, oral, > 2000 mg/kg.

**Substance**

Phosphoric acid, CAS: 7664-38-2

LD50, oral, Rat: 1530 mg/kg (Lit.).

**Acute dermal toxicity**

**Product**

ATE-mix, dermal, > 2000 mg/kg

**Substance**

Phosphoric acid, CAS: 7664-38-2

LD50, dermal, Rabbit, 2740 mg/kg



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### Acute inhalational toxicity

Product
ATE-mix, inhalativ (mist), > 5 mg/L 4h

#### Serious eye damage/irritation:

Product is caustic.  
Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available.  
Calculation method

Substance
Phosphoric acid, CAS: 7664-38-2
Eye, corrosive

#### Skin corrosion/irritation:

Product is caustic.  
Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available.  
Calculation method

Substance
Phosphoric acid, CAS: 7664-38-2
dermal, corrosive

#### Respiratory or skin sensitisation:

Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

#### Specific target organ toxicity (single exposure):

Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

#### Specific target organ toxicity (repeated exposure):

Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Substance
Phosphoric acid, CAS: 7664-38-2
LOAEL, oral, Rat, 155 mg/kg bw/day (subchronic), The effects observed are not sufficient for classification.

#### Mutagenicity:

Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

#### Reproduction toxicity:

Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

#### - Fertility:

No information available.



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### - Development

Substance
Phosphoric acid, CAS: 7664-38-2
NOAEL, oral, mouse, 370 mg/kg bw/day, OECD 422, no adverse effect observed

#### Carcinogenicity:

Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Substance
Phosphoric acid, CAS: 7664-38-2
negative

#### Aspiration hazard:

Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled.

#### General remarks:

None.

### 11.2 Information on other hazards

#### Endocrine disrupting properties:

Contains no ingredients with endocrine-disrupting properties.

## SECTION 12: Ecological information

### 12.1 Toxicity

Substance
Phosphoric acid, CAS: 7664-38-2
EC50, (72h), <i>Desmodesmus subspicatus</i> , > 100 mg/L (OECD 201)
EC50, (48h), <i>Daphnia magna</i> , > 100 mg/L (OECD 202)
NOEC, (72h), <i>Desmodesmus subspicatus</i> , 100 mg/L (OECD 201)
NOEC, (48h), <i>Daphnia magna</i> , 56 mg/L (OECD 202)

### 12.2 Persistence and degradability:

Not determined.

#### Behaviour in environment compartments:

Not determined.

#### Behaviour in sewage plant:

Not determined.

#### Biological degradability:

The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

### 12.3 Bioaccumulative potential:

Accumulation in organisms is not expected.

### 12.4 Mobility in soil:

Spillages may penetrate the soil causing ground water contamination.

### 12.5 Results of PBT and vPvB assessment:

Based on all available information not to be classified as PBT or vPvB respectively.



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- 12.6 Endocrine disrupting properties:** Contains no ingredients with endocrine-disrupting properties.
- 12.7 Other adverse effects:** None known.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods:**

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.


- Product:** Coordinate disposal with the authorities if necessary. Dispose of as hazardous waste.
- Waste no. (recommended):** 200129\*  
060104\*
- Contaminated packaging** Uncontaminated packaging may be reused. Packaging that cannot be cleaned should be disposed of as for product.
- Waste no. (recommended):** 150110\* packaging containing residues of or contaminated by hazardous substances

**SECTION 14: Transport information**

**14.1 UN number**

- Transport by land according to ADR/RID:** 1805  
**Inland navigation (ADN):** 1805  
**Marine transport in accordance with IMDG:** 1805  
**Air transport in accordance with IATA:** 1805

**14.2 UN proper shipping name**

- Transport by land according to ADR/RID:** Phosphoric acid, solution  
**- Classification Code** C1  
**- Label** 
- ADR LQ** 5 l  
**- ADR 1.1.3.6 (8.6)** Transport category (tunnel restriction code) 3 (E)

- Inland navigation (ADN):** Phosphoric acid, solution  
**- Classification Code** C1  
**- Label** 

- Marine transport in accordance with IMDG:**  
**- EMS** F-A, S-B





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- Label



- IMDG LQ

5 I

Air transport in accordance with IATA:

- Label



**14.3 Transport hazard class(es)**

Transport by land according to ADR/RID: 8

Inland navigation (ADN): 8

Marine transport in accordance with

IMDG: 8

Air transport in accordance with IATA: 8

**14.4 Packing group**

Transport by land according to ADR/RID: III

Inland navigation (ADN): III

Marine transport in accordance with

IMDG: III

Air transport in accordance with IATA: III

**14.5 Environmental hazards**

Transport by land according to ADR/RID: No

Inland navigation (ADN): No

Marine transport in accordance with

IMDG: No

Air transport in accordance with IATA: No

**14.6 Special precautions for user:**

Relevant information under Section 6 to 8.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

not applicable

**SECTION 15: Regulatory information**

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

**EEC-REGULATIONS:**

2008/98/EC 2000/532/EC; 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014

**TRANSPORT-REGULATIONS:**

ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2023)

**NATIONAL REGULATIONS (GB):**

**Observe employment restrictions for people:**

Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.

**VOC (2010/75/CE):**

0 %



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**15.2 Chemical safety assessment:** Not applicable.

### SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. The data given here only applies when product used for proper application(s). The product is not sold as suitable for other applications - usage in such may cause risks not mentioned in this sheet. Do not use for other application(s) without seeking advice from manufacturer.

#### 16.1 Hazard statements (SECTION 03):

H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.

#### 16.2 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)  
RID: Règlement concernant le transport international ferroviaire de marchandises dangereuses  
ADN: Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
ATE: acute toxicity estimate  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
CLP: Classification, Labelling and Packaging  
DMEL: Derived Minimum Effect Level  
DNEL: Derived No-Effect Level (REACH)  
EC50: Median effective concentration  
ECB: = European Chemicals Bureau  
EEC: European Economic Community  
EINECS: European Inventory of Existing Commercial Chemical Substances  
EL50: Median effective loading  
ELINCS: European List of Notified Chemical Substances  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
IATA: International Air Transport Association  
IBC-Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC50: Inhibition concentration, 50%  
IMDG: International Maritime Code for Dangerous Goods  
IUCLID: International Uniform Chemical Information Database  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
LC0: lethal concentration, 0%  
LOAEL: lowest-observed-adverse-effect level  
LL50: Median lethal loading  
LQ: Limited Quantities  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
NOAEL: No Observed Adverse Effect Level  
NOEC: No Observed Effect Concentration  
PBT: Persistent, Bioaccumulative and Toxic substance  
PNEC: Predicted No-Effect Concentration (REACH)  
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals  
STP: Sewage Treatment Plant  
TLV®/TWA: Threshold limit value – time-weighted average  
TLV®STEL: Threshold limit value – short-time exposure limit  
VOC: Volatile Organic Compounds  
VPvB: very Persistent and very Bioaccumulative.



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**16.3 Other information:**

**Classification procedure:**

Skin Corr. 1B: H314

Eye Dam. 1: H318

Met. Corr. 1: H290

Causes severe skin burns and eye damage. (Calculation method)

Causes serious eye damage. (Calculation method)

May be corrosive to metals. (Calculation method)

**Modified position:**

SECTION 11 been added: Contains no ingredients with endocrine-disrupting properties.