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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 / 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

Human health dangers:	Contains no ingredients with endocrine-disrupting properties.
Environmental hazards:	Does not contain any PBT or vPvB substances.
Other hazards:	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

General information:	Take off contaminated clothing and wash before reuse.
After inhalation:	Remove the victim into fresh air and keep him calm. In the event of symptoms seek medical treatment.
After skin contact:	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.
After eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a doctor immediately.
After swallowing:	Consult a doctor immediately. Do not induce vomiting. Rinse out mouth and give plenty of water to drink.
4.2 Most important symptoms and effects, both acute and delayed:	Product is caustic.
4.3 Indication of any immediate medical attention and special treatment needed:	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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- For safety reasons unsuitable extinguishing agents:** Full water jet.
- 5.2 Special hazards arising from the substance or mixture:** Risk of formation of toxic pyrolysis products.
- 5.3 Advice for firefighters:** 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

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

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
Information about protection against explosions and fires:** 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
- 7.2 Conditions for safe storage, including any incompatibilities** 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.
- 7.3 Specific end use(s)** 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)**

Substance / EC LIMIT VALUES
Phosphoric acid
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 ³
Short-term (15-minute): 2 mg/m ³

DNEL

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

PNEC

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

8.2 Exposure controls:	
Additional advice on system design:	Ensure adequate ventilation on workstation.
Eye protection:	Tightly fitting goggles. ((EN 166:2001).
Hand protection:	0.4mm Butyl rubber, >480 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
Skin protection:	Protective clothing (EN 340)
Other:	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.
Respiratory protection:	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)
Thermal hazards:	None.
Delimitation and monitoring of the environmental exposition:	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

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



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

9.2 Other information: none

SECTION 10: Stability and reactivity

10.1 Reactivity:	No dangerous reactions known if used as directed.
10.2 Chemical stability:	The product is stable under standard conditions.
10.3 Possibility of hazardous reactions:	Reactions with alkalis (lyes). Reactions with light metals, with evolution of hydrogen.
10.4 Conditions to avoid:	Heating
10.5 Incompatible materials:	Alkalies
10.6 Hazardous decomposition products:	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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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), Desmodesmus subspicatus, > 100 mg/L (OECD 201)
EC50, (48h), Daphnia magna, > 100 mg/L (OECD 202)
NOEC, (72h), Desmodesmus subspicatus, 100 mg/L (OECD 201)
NOEC, (48h), Daphnia magna, 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.