

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 05.02.2008

Revision: 05.02.2008

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

- **Product details**
- **Trade name:** Alpha-Ex
- **Application of the substance / the preparation** Discharging agent
- **Manufacturer/Supplier:**
Wieland Dental + Technik GmbH & Co.KG
Schwenninger Str. 13
75179 Pforzheim
Telefon + 49 (07231)-37050, Telefax + 49 (07231)-357959
- **Further information obtainable from:** Abteilung Umweltschutz
- **Information in case of emergency:** + 49 (07231)-3705-0

2 Hazards identification

- **Hazard description:**



T+ Very toxic
C Corrosive

- **Information concerning particular hazards for human and environment:**

- R 26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.
- R 35 Causes severe burns.
- R 37 Irritating to respiratory system.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

3 Composition/information on ingredients

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

- **Dangerous components:**

CAS: 7697-37-2	Salpetersäure		25-50%
CAS: 7664-39-3 EINECS: 231-634-8	hydrofluoric acid	T+, C; R 26/27/28-35	5-10%
CAS: 7647-01-0 EINECS: 231-595-7	hydrogen chloride	C, Xi; R 34-37	1-5%

4 First-aid measures

- **General information:**

Immediately remove any clothing soiled by the product.
In case of irregular breathing or respiratory arrest provide artificial respiration.

- **After inhalation:**

Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:** 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:**

Do not induce vomiting; call for medical help immediately.

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Drink plenty of water and provide fresh air. Call for a doctor immediately.

5 Fire-fighting measures

- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards caused by the substance, its products of combustion or resulting gases:**
In case of fire, the following can be released:
Nitrogen oxides (NO_x)
Hydrogen fluoride (HF)
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Person-related safety precautions:**
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**
Do not allow product to reach sewage system or any water course.
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
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:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

8 Exposure controls/personal protection

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

Ingredients with limit values that require monitoring at the workplace:

7697-37-2 Salpetersäure

WEL	Short-term value: 10 mg/m ³ , 4 ppm
	Long-term value: 5.2 mg/m ³ , 2 ppm

7664-39-3 hydrofluoric acid

WEL	Short-term value: 2.5 mg/m ³ , 3 ppm
	Long-term value: 1.5 mg/m ³ , 1.8 ppm

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7647-01-0 hydrogen chloride

WEL	Short-term value: 8 mg/m ³ , 5 ppm Long-term value: 2 mg/m ³ , 1 ppm (gas and aerosol mists)
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- **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 and skin.
- **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:** Plastic gloves
- **Material of gloves:** Chloroprene rubber, CR
- **Penetration time of glove material**
 - The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.
 - Value for the permeation: Level \geq 6
- **For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:**
 - Chloroprene rubber, CR
 - PVC or PE gloves
- **Not suitable are gloves made of the following materials:**
 - Leather gloves
 - Strong material gloves
- **Eye protection:**
 -  Tightly sealed goggles
- **Body protection:** Protective work clothing

9 Physical and chemical properties· **General Information**

Form:	Fluid
Colour:	Colourless
Odour:	Product specific

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	>100°C

Flash point:	Not applicable.
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Self-igniting:	Product is not selfigniting.
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Danger of explosion:	Product does not present an explosion hazard.
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· **Explosion limits:**

Oxidizing properties	None
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Vapour pressure at 20°C:	23 hPa
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· Density at 20°C:	1.16 g/cm ³
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· Solubility in / Miscibility with water:	Fully miscible.
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· pH-value at 20°C:	< 1
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· Solvent content: Organic solvents:	0.0 %
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10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Dangerous reactions** Reacts with strong alkali.
- **Dangerous decomposition products:** Nitrogen oxides

11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Very toxic
Corrosive
Danger through skin adsorption.
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

- **General notes:**
Generally not hazardous for water
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.

13 Disposal considerations

- **Product:**
- **Recommendation** Must be specially treated adhering to official regulations.

· European waste catalogue

11 00 00	WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY
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11 01 00	wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)
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11 01 05	pickling acids
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- **Uncleaned packaging:**
- **Recommendation:**
Packagings that may not be cleansed are to be disposed of in the same manner as the product.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

· Land transport ADR/RID (cross-border)



- **ADR/RID class:** 6.1 (TC3) Toxic substances.
- **Danger code (Kemler):** 68
- **UN-Number:** 3289
- **Packaging group:** II
- **Hazard label:** 6.1+8
- **Description of goods:** 3264 Corrosive liquid, acidic, inorganic, n.o.s., nitric acid, hydrofluoric acid
- **Limited quantities (LQ):** LQ17
- **Transport category:** 2
- **Tunnel restriction code:** E

· Maritime transport IMDG:



- **IMDG Class:** 6.1
- **UN Number:** 3289
- **Label:** 6.1+8
- **Packaging group:** II
- **EMS Number:** F-A,S-B
- **Marine pollutant:** No
- **Proper shipping name:** TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S. (HYDROFLUORIC ACID, NITRIC ACID)

· Air transport ICAO-TI and IATA-DGR:



- **ICAO/IATA Class:** 6.1
- **UN/ID Number:** 3289
- **Label:** 6.1+8
- **Packaging group:** II
- **Proper shipping name:** TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S. (HYDROFLUORIC ACID, NITRIC ACID)

15 Regulatory information

- **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

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· **Code letter and hazard designation of product:**

T+ Very toxic

C Corrosive

· **Hazard-determining components of labelling:**

hydrofluoric acid

· **Risk phrases:**

26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.

35 Causes severe burns.

37 Irritating to respiratory system.

· **Safety phrases:**

20 When using do not eat or drink.

23 Do not breathe fumes/aerosol.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

27/28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

60 This material and its container must be disposed of as hazardous waste.

· **National regulations:**

· **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

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 R-phrases**

26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.

34 Causes burns.

35 Causes severe burns.

37 Irritating to respiratory system.

· **Department issuing MSDS:** Abteilung Umweltschutz

· **Contact:** Herr Selzer

· *** Data compared to the previous version altered.**

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