

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/10/2015

Reviewed on 08/10/2015

1 Identification

- **Product identifier**
- **Trade name:** VITA CERAMICS ETCH
- **Article number:** FCE..
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available
- **Application of the substance / the mixture** Auxiliary for manufacture of dental prothesis
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
VITA Zahnfabrik
H. Rauter GmbH & Co. KG

- Postfach 1338
D 79704 Bad Säckingen
e-mail: info@vita-zahnfabrik.com
- **Emergency telephone number:** Tel.: ++49-(0)761-19240

Tel.: 07761/562-0
Fax: 07761/562299

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS06 Skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.
Acute Tox. 2 H310 Fatal in contact with skin.



GHS08 Health hazard

Carc. 1A H350 May cause cancer.



GHS05 Corrosion

Met. Corr.1 H290 May be corrosive to metals.
Skin Corr. 1A H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Toxic

Toxic by inhalation, in contact with skin and if swallowed.



Corrosive

Causes severe burns.

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

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

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- **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05 GHS06 GHS08

- **Signal word** *Danger*

- **Hazard-determining components of labeling:**

hydrogen fluoride
sulphuric acid
ethanol

- **Hazard statements**

H290 May be corrosive to metals.
H301 Toxic if swallowed.
H310 Fatal in contact with skin.
H332 Harmful if inhaled.
H314 Causes severe skin burns and eye damage.
H350 May cause cancer.

- **Precautionary statements**

P260 Do not breathe dusts or mists.
P301+P310 If swallowed: Immediately call a poison center/doctor.
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.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system**

- **NFPA ratings (scale 0-4)**



Health = 3
Fire = 0
Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.
· **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

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




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· Dangerous components:		
CAS: 7664-93-9	sulphuric acid  C R35  Carc. 1A, H350;  Skin Corr. 1A, H314	5-<10%
CAS: 7664-39-3	hydrogen fluoride  T+ R26/27/28;  C R35  Acute Tox. 2, H300; Acute Tox. 1, H310; Acute Tox. 2, H330;  Skin Corr. 1A, H314	2.5-<5%
CAS: 64-17-5 Reg.nr.: 01-2119457610-43-xxx	ethanol  F R11  Flam. Liq. 2, H225;  Carc. 1A, H350;  Eye Irrit. 2A, H319	2.5-<10%

· **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First-aid measures

· Description of first aid measures

· General information

Immediately remove any clothing soiled by the product.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· After inhalation

Seek medical treatment.

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact

Rub in Ca-gluconate solution or Ca-gluconate gel immediately.

Immediately wash with water and soap and rinse thoroughly.

· After eye contact

Call a doctor immediately.

Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing

Seek immediate medical advice.

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

· Information for doctor

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire-fighting measures

· Extinguishing media

· Suitable extinguishing agents

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· For safety reasons unsuitable extinguishing agents

Water.

· Special hazards arising from the substance or mixture

No further relevant information available.

· Advice for firefighters

· **Protective equipment:** Mount respiratory protective device.

· **Additional information** None

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing 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**
Extractor required on object.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Store away from flammable substances.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Storage class** 6.1 B
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

Components with limit values that require monitoring at the workplace:

7664-39-3 hydrogen fluoride

PEL	Long-term value: 3 ppm as F
REL	Long-term value: 2.5 mg/m ³ , 3 ppm Ceiling limit value: 5* mg/m ³ , 6* ppm *15-min, as F
TLV	Long-term value: 0.41 mg/m ³ , 0.5 ppm Ceiling limit value: 1.64 mg/m ³ , 2 ppm as F; Skin, BEI

64-17-5 ethanol

PEL	Long-term value: 1900 mg/m ³ , 1000 ppm
REL	Long-term value: 1900 mg/m ³ , 1000 ppm

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· **Ingredients with biological limit values:**

7664-39-3 hydrogen fluoride

BEI 3 mg/g creatinine
 Medium: urine
 Time: prior to shift
 Parameter: Fluorides (background, nonspecific)

10 mg/g creatinine
 Medium: urine
 Time: end of shift
 Parameter: Fluorides (background, nonspecific)

· **Additional information:** The lists that were valid during the creation 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.
 Store protective clothing separately.
 Avoid contact with the eyes and skin.

· **Breathing equipment:**

Use ventilation hood
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **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**

e.g. Dermatril P, KCL Nr. 743

Nitrile rubber, NBR

The selection of the 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**

e.g. KCL Dermatril P 480 min

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles.

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9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Viscous
Color:	Light red
Odor:	Characteristic
Odour threshold:	Not determined.

· pH-value at 20 °C (68 °F): 2

· Change in condition

Melting point/Melting range:	undetermined
Boiling point/Boiling range:	100 °C (212 °F)

· Flash point: Not applicable

· Flammability (solid, gaseous) Not applicable.

· Ignition temperature:

Decomposition temperature: Not determined.

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Oxidizing properties: None

· Vapor pressure at 20 °C (68 °F): 23 hPa (17 mm Hg)

· Density at 20 °C (68 °F): 1.06 g/cm³ (8.846 lbs/gal)

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with

Water: Fully miscible

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

dynamic:	Not determined.
kinematic:	Not determined.

· Solvent content:

Organic solvents:	3.2 %
Water:	82.6 %

· Other information: No further relevant information available.

10 Stability and reactivity

· Reactivity No decomposition if used and stored according to specifications.

· Chemical stability No decomposition if used and stored according to specifications.

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· Possibility of hazardous reactions No dangerous reactions known

· Conditions to avoid No further relevant information available.

· Incompatible materials: No further relevant information available.

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· **Hazardous decomposition products:** No dangerous decomposition products known

11 Toxicological information

· **Information on toxicological effects**· **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 internally approved calculation methods for preparations:

Toxic

Corrosive

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

7664-93-9 sulphuric acid

I

64-17-5 ethanol

I

· **NTP (National Toxicology Program)**

7664-93-9 sulphuric acid

K

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**· **Aquatic toxicity:** No further relevant information available.· **Persistence and degradability** No further relevant information available.· **Behavior 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 2 (Self-assessment): hazardous for water.

Do not allow product to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Danger to drinking water if even small quantities leak into the ground.

· **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** Disposal must be made according to official regulations.· **Uncleaned packagings:**· **Recommendation:** Disposal must be made according to official regulations.

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· Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

· UN-Number

· DOT, ADR, IMDG, IATA

UN2922

· UN proper shipping name

· DOT

Corrosive liquids, toxic, n.o.s. (Hydrogen fluoride, Sulfuric acid)

· ADR

UN2922 Corrosive liquids, toxic, n.o.s. (Hydrogen fluoride, Sulfuric acid)

· IMDG, IATA

CORROSIVE LIQUID, TOXIC, N.O.S. (HYDROGEN FLUORIDE, SULPHURIC ACID)

· Transport hazard class(es)

· DOT



· Class

8 Corrosive substances

· Label

8, 6.1

· ADR



· Class

8 Corrosive substances

· Label

8+6.1

· IMDG



· Class

8 Corrosive substances

· Label

8/6.1

· IATA



· Class

8 Corrosive substances

· Label

8 (6.1)

· Packing group

· DOT, ADR, IMDG, IATA

II

· Environmental hazards:

· Marine pollutant:

No

· Special precautions for user

Warning: Corrosive substances

· Danger code (Kemler):

886

· EMS Number:

F-A,S-B

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· Segregation groups	Acids
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 2922 CORROSIVE LIQUIDS, TOXIC, N.O.S. (HYDROGEN FLUORIDE, SULFURIC ACID), 8 (6.1), II

*

15 Regulatory information

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

· SARA Section 355 (extremely hazardous substances)

7664-93-9	sulphuric acid
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7664-39-3	hydrogen fluoride
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· SARA Section 313 (specific toxic chemical listings)

7664-93-9	sulphuric acid
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7664-39-3	hydrogen fluoride
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· TSCA (Toxic Substances Control Act)

All ingredients are listed.

· Prop 65 - Chemicals known to cause cancer

None of the ingredients is listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

7664-93-9	sulphuric acid	A2
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64-17-5	ethanol	A3
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· MAK (German Maximum Workplace Concentration)

7664-93-9	sulphuric acid	4
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64-17-5	ethanol	5
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· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· National regulations

· Technical instructions (air):

Class	Share in %
NK	3-<5

· Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

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· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

· **Date of preparation / last revision** 08/10/2015 / 1· **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

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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)

NFPA: National Fire Protection Association (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Met. Corr. 1: Corrosive to metals, Hazard Category 1

Acute Tox. 2: Acute toxicity, Hazard Category 2

Acute Tox. 3: Acute toxicity, Hazard Category 3

Acute Tox. 1: Acute toxicity, Hazard Category 1

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Carc. 1A: Carcinogenicity, Hazard Category 1A

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

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