

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**VITA CERAMICS ETCH**

Revision date:

Product code: 019

Page 1 of 9

**1. Identification****Product identifier**

VITA CERAMICS ETCH

**Recommended use of the chemical and restrictions on use****Use of the substance/mixture**

Use as laboratory reagent

**Details of the supplier of the safety data sheet**

Company name:	VITA Zahnfabrik H.Rauter GmbH & Co.KG	
Street:	Spitalgasse 3	
Place:	D-79713 Bad Säckingen	
Post-office box:	1338	
	D-79704 Bad Säckingen	
Telephone:	+49(0)7761-562-0	Telefax: +49(0)7761-562-299
e-mail:	info@vita-zahnfabrik.com	
Contact person:	regulatory affairs	
e-mail:	info@vita-zahnfabrik.com	
Internet:	www.vita-zahnfabrik.com	
Responsible Department:	Regulatory Affairs	

**Emergency phone number:** +49-(0)761-19240

**2. Hazard(s) identification****Classification of the chemical****29 CFR Part 1910.1200**

Acute toxicity: Acute Tox. 2 (dermal)  
Acute toxicity: Acute Tox. 3 (oral)  
Acute toxicity: Acute Tox. 4 (inhalation)  
Skin corrosion/irritation: Skin Corr. 1A  
Serious eye damage/eye irritation: Eye Dam. 1

**Label elements****29 CFR Part 1910.1200****Signal word:** Danger**Pictograms:****Hazard statements**

Toxic if swallowed  
Fatal in contact with skin  
Causes severe skin burns and eye damage  
Harmful if inhaled

**Precautionary statements**

Do not breathe dust/fume/gas/mist/vapors/spray.  
Do not get in eyes, on skin, or on clothing.  
Wash ... thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**VITA CERAMICS ETCH**

Revision date:

Product code: 019

Page 2 of 9

If swallowed: Rinse mouth. Do NOT induce vomiting.  
 Immediately call a poison center/doctor.  
 Specific treatment (see ... on this label).  
 If on skin: Wash with plenty of water.  
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 Immediately call a poison center/doctor.  
 Specific treatment (see ... on this label).  
 Take off immediately all contaminated clothing and wash it before reuse.  
 If inhaled: Remove person to fresh air and keep comfortable for breathing.  
 Immediately call a poison center/doctor.  
 Specific treatment (see ... on this label).  
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
 Continue rinsing.  
 Immediately call a poison center/doctor.  
 Store locked up.  
 Dispose of contents/container to ....

**Hazards not otherwise classified**

No information available.

**3. Composition/information on ingredients****Mixtures****Hazardous components**

CAS No	Components	Quantity
7664-93-9	Sulphuric acid ... %	7.84 %
7664-39-3	hydrofluorid acid	4.8 %
64-17-5	ethyl alcohol	3.19 %

**4. First-aid measures****Description of first aid measures****General information**

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

**After inhalation**

Provide fresh air. Medical treatment necessary. IF INHALED: Call a POISON CENTER/doctor// if you feel unwell.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Call a physician immediately. After contact with skin, wash immediately with plenty of water and soap. IF ON SKIN (or hair): Ca-Gluconate solution Immediately call a POISON CENTER/doctor/.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Immediately call a POISON CENTER/doctor/. Ca-Gluconate solution

**After ingestion**

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately.

**Most important symptoms and effects, both acute and delayed**

No information available.

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

Treat symptomatically.

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**VITA CERAMICS ETCH**

Revision date:

Product code: 019

Page 3 of 9

**5. Fire-fighting measures****Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**Specific hazards arising from the chemical**

Non-flammable.

**Special protective equipment and precautions for fire-fighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

**Additional information**

Suppress gases/vapors/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures****General advice**

Provide adequate ventilation. Do not breathe gas/fume/vapor/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

**Environmental precautions**

Do not allow to enter into surface water or drains.

**Methods and material for containment and cleaning up****Other information**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**Reference to other sections**

Safe handling: see section 7  
Personal protection equipment (PPE): see section 8  
Disposal: see section 13

**7. Handling and storage****Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fume/vapor/spray.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

**Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations.

**Hints on joint storage**

No special measures are necessary.

## Safety Data Sheet

according to 29 CFR 1910.1200(g)

### VITA CERAMICS ETCH

Revision date:

Product code: 019

Page 4 of 9

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure limits

CAS No.	Substance	ppm	mg/m <sup>3</sup>	f/cc	Category	Origin
64-17-5	Ethyl alcohol (Ethanol)	1000	1900		TWA (8 h)	PEL
64-17-5	Ethyl alcohol	1000	1900		TWA (8 h)	REL
7664-39-3	Hydrogen fluoride (as F)	3	-		TWA (8 h)	PEL
7664-39-3	Hydrogen fluoride	3	2.5		TWA (8 h)	REL
		C 6	C 5		Ceiling	REL
7664-93-9	Sulfuric acid	-	1		TWA (8 h)	PEL
		-	1		TWA (8 h)	REL

### Exposure controls



#### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fume/vapor/spray.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Suitable eye protection: goggles. Wear eye/face protection.

##### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Recommended glove articles KCL Dermatril P Wearing time with occasional contact (splashes): 480 min

##### Skin protection

Wear suitable protective clothing.

##### Respiratory protection

If handled uncovered, arrangements with local exhaust ventilation have to be used.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Physical state:

Color: light red

Odor: characteristic

#### Changes in the physical state

Melting point/freezing point: not determined

Boiling point or initial boiling point and boiling range: 100 °C

#### Flammability

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**VITA CERAMICS ETCH**

Revision date:

Product code: 019

Page 5 of 9

Solid/liquid: not applicable

Gas: not applicable

**Explosive properties**

The product is not: Explosive.

**Self-ignition temperature**

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

pH-Value: 2,0

**Solubility in other solvents**

not determined

Partition coefficient n-octanol/water: not determined

Vapor pressure:  
(at 50 °C) <=1100 hPaDensity: 1,06000 g/cm<sup>3</sup>

Relative vapour density: not determined

**Other information****Information with regard to physical hazard classes**

Oxidizing properties

Not oxidising.

**Other safety characteristics**

Solid content: 1,5 %

Evaporation rate: not determined

**Further Information****10. Stability and reactivity****Reactivity**

No hazardous reaction when handled and stored according to provisions.

**Chemical stability**

The product is stable under storage at normal ambient temperatures.

**Possibility of hazardous reactions**

No known hazardous reactions.

**Conditions to avoid**

none/none

**Incompatible materials**

No information available.

**Hazardous decomposition products**

No known hazardous decomposition products.

**11. Toxicological information****Information on toxicological effects****Acute toxicity**

Fatal in contact with skin

Toxic if swallowed

Harmful if inhaled

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**VITA CERAMICS ETCH**

Revision date:

Product code: 019

Page 6 of 9

**ATEmix calculated**

ATE (oral) 104,2 mg/kg; ATE (dermal) 104,2 mg/kg; ATE (inhalation vapour) 10,42 mg/l; ATE (inhalation aerosol) 1,042 mg/l

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
7664-39-3	hydrofluorid acid				
	oral	ATE 5 mg/kg			
	dermal	ATE 5 mg/kg			
	inhalation vapour	ATE 0.5 mg/l			
	inhalation aerosol	ATE 0.05 mg/l			
64-17-5	ethyl alcohol				
	dermal	LD50 7060 mg/kg			

**Irritation and corrosivity**

Causes severe skin burns and eye damage  
Causes serious eye damage

**Sensitizing effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

**Specific target organ toxicity (STOT) - single exposure**

Based on available data, the classification criteria are not met.

**Specific target organ toxicity (STOT) - repeated exposure**

Based on available data, the classification criteria are not met.

Carcinogenicity (OSHA):

No ingredient of this mixture is listed.

Carcinogenicity (IARC):

Sulfuric Acid (CAS 7664-93-9) is listed in group 1. Ethanol in alcoholic beverages (CAS 64-17-5) is listed in group 1.

Carcinogenicity (NTP):

Sulfuric Acid (CAS 7664-93-9) is listed in group Known.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Additional information on tests**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Specific hazards arising from the chemical!

**12. Ecological information****Ecotoxicity**

The product is not: Ecotoxic.

**Persistence and degradability**

The product has not been tested.

**Bioaccumulative potential**

The product has not been tested.

**Mobility in soil**

The product has not been tested.

**Other adverse effects**

No information available.

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**VITA CERAMICS ETCH**

Revision date:

Product code: 019

Page 7 of 9

**Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

**13. Disposal considerations****Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

**Contaminated packaging**

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated packages in the same way as the substance itself.

**14. Transport information****Marine transport (IMDG)**

**UN number or ID number:** UN 2922  
**UN proper shipping name:** CORROSIVE LIQUID, TOXIC, N.O.S. (Wasser)  
**Transport hazard class(es):** 8  
**Packing group:** II  
 Hazard label: 8+6.1



Special Provisions: 274  
 Limited quantity: 1 L  
 Excepted quantity: E2  
 EmS: F-A, S-B

**Air transport (ICAO-TI/IATA-DGR)**

**UN number or ID number:** UN 2922  
**UN proper shipping name:** CORROSIVE LIQUID, TOXIC, N.O.S. (Wasser)  
**Transport hazard class(es):** 8  
**Packing group:** II  
 Hazard label: 8+6.1



Special Provisions: A3 A803  
 Limited quantity Passenger: 0.5 L  
 Passenger LQ: Y840  
 Excepted quantity: E2  
 IATA-packing instructions - Passenger: 851  
 IATA-max. quantity - Passenger: 1 L  
 IATA-packing instructions - Cargo: 855  
 IATA-max. quantity - Cargo: 30 L

**Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**VITA CERAMICS ETCH**

Revision date:

Product code: 019

Page 8 of 9

**Special precautions for user**

Warning: Acute Toxicity, strongly corrosive.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not applicable

**15. Regulatory information****U.S. Regulations****National regulatory information**

SARA Section 302 Extremely hazardous substances:

Sulfuric acid (aerosol forms only) (7664-93-9): Reportable quantity = 1,000 lbs., Threshold planning quantity = 1,000 lbs.

Hydrofluoric acid (conc. &lt; 50%) (7664-39-3): Reportable quantity = 100 lbs., Threshold planning quantity = 100 lbs.

SARA Section 304 CERCLA:

Sulfuric acid (aerosol forms only) (7664-93-9): Reportable quantity = 1,000 (454) lbs. (kg)

Hydrofluoric acid (conc. &lt; 50%) (7664-39-3): Reportable quantity = 100 (45.4) lbs. (kg)

SARA Section 311/312 Hazards:

Sulfuric acid (aerosol forms only) (7664-93-9): Immediate (acute) health hazard

Hydrofluoric acid (conc. &lt; 50%) (7664-39-3): Immediate (acute) health hazard

ethyl alcohol (64-17-5): Fire hazard, Immediate (acute) health hazard

SARA Section 313 Toxic release inventory:

Sulfuric acid (aerosol forms only) (7664-93-9): De minimis limit = 1.0 %, Reportable threshold = Standard

Hydrofluoric acid (conc. &lt; 50%) (7664-39-3): De minimis limit = 1.0 %, Reportable threshold = Standard

Clean Air Act Section 112(b):

Hydrofluoric acid (conc. &lt; 50%) (7664-39-3)

**State Regulations****Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

**16. Other information**

Revision date:

Revision No:

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)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level



**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**VITA CERAMICS ETCH**

Revision date:

Product code: 019

Page 9 of 9

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

LL50: Lethal loading, 50%

EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate

NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

RID: Regulations concerning the international carriage of dangerous goods by rail

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

EmS: Emergency Schedules

MFAG: Medical First Aid Guide

ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

SVHC: Substance of Very High Concern

For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

**Other data**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

---

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*