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

**1.1. Product identifier**

VITA CERAMICS ETCH

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Use of the substance/mixture**

Use as laboratory reagent

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

<table>
<thead>
<tr>
<th>Company name:</th>
<th>VITA Zahnfabrik H.Rauter GmbH &amp; Co.KG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-office box:</td>
<td>1338</td>
</tr>
<tr>
<td>79704 Bad Säckingen</td>
<td></td>
</tr>
<tr>
<td>Telephone:</td>
<td>+49(0)7761-562-0</td>
</tr>
<tr>
<td>Telefax:</td>
<td>+49(0)7761-562-299</td>
</tr>
<tr>
<td>e-mail:</td>
<td><a href="mailto:info@vita-zahnfabrik.com">info@vita-zahnfabrik.com</a></td>
</tr>
<tr>
<td>Internet:</td>
<td><a href="http://www.vita-zahnfabrik.com">www.vita-zahnfabrik.com</a></td>
</tr>
</tbody>
</table>

**1.4. Emergency telephone number:**

+49-(0)761-19240

### SECTION 2: Hazards identification

**2.1. Classification of the substance or mixture**

**Regulation (EC) No. 1272/2008**

**Hazard categories:**

- Substance or mixture corrosive to metals: Met. Corr. 1
- Acute toxicity: Acute Tox. 2
- Acute toxicity: Acute Tox. 3
- Acute toxicity: Acute Tox. 4
- Skin corrosion/irritation: Skin Corr. 1A
- Serious eye damage/eye irritation: Eye Dam. 1

**Hazard Statements:**

- May be corrosive to metals.
- Fatal in contact with skin.
- Toxic if swallowed.
- Harmful if inhaled.
- Causes severe skin burns and eye damage.
- Causes serious eye damage.

**2.2. Label elements**

**Regulation (EC) No. 1272/2008**

**Hazard components for labelling**

- Sulphuric acid ... %
- hydrofluorid acid

**Signal word:** Danger

**Pictograms:**

- ![Hazard Symbol](image)
- ![Hazard Symbol](image)

**Hazard statements**

- H301: Toxic if swallowed.
- H310: Fatal in contact with skin.
- H314: Causes severe skin burns and eye damage.
- H332: Harmful if inhaled.
Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P405 Store locked up.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or 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.
P310 Immediately call a POISON CENTER/doctor.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>EC No</th>
<th>Index No</th>
<th>REACH No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

GHS Classification

- 7664-93-9 Sulphuric acid ... %
  - 231-639-5 016-020-00-8
  - Skin Corr. 1A; H314
- 7664-39-3 hydrofluorid acid
  - 231-634-8 009-002-00-6 01-2119458860-33
  - Acute Tox. 1, Acute Tox. 2, Skin Corr. 1A; H310 H330 H300 H314
- 64-17-5 ethyl alcohol
  - 200-578-6 603-002-00-5 01-2119457610-43
  - Flam. Liq. 2, Eye Irrit. 2; H225 H319

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. 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.

Print date: 20.04.2020 GB - EN
4.2. Most important symptoms and effects, both acute and delayed
No information available.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture
Non-flammable.

5.3. Advice for firefighters
Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions
Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion
No special fire protection measures are necessary.

7.2. 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 exhaustion at critical locations.

Hints on joint storage
No special measures are necessary.

7.3. Specific end use(s)
Use as laboratory reagent

SECTION 8: Exposure controls/personal protection
8.1. Control parameters

Exposure limits (EH40)

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>ppm</th>
<th>mg/m³</th>
<th>fibres/ml</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5</td>
<td>Ethanol</td>
<td>1000</td>
<td>1920</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td>7664-39-3</td>
<td>Hydrogen fluoride (as F)</td>
<td>1.8</td>
<td>1.5</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>2.5</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
<tr>
<td>7664-93-9</td>
<td>Sulphuric acid (mist)</td>
<td>-</td>
<td>0.05</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

**Appropriate engineering controls**

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

**Protective and hygiene measures**

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.

**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.

---

**SECTION 9: Physical and chemical properties**

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

**Physical state:**

- Colour: light red
- Odour: characteristic
- pH-Value: 2.0

**Changes in the physical state**

- Melting point: not determined
- Initial boiling point and boiling range: 100 °C

**Flammability**

- Solid: not applicable
- Gas: not applicable
Explosive properties
The product is not: Explosive.

Lower explosion limits:
Upper explosion limits:

Auto-ignition temperature
Solid: not applicable
Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties
Not oxidising.

Vapour pressure: <=1100 hPa
(at 50 °C)

Density: 1,06000 g/cm³

Solubility in other solvents
not determined

Partition coefficient: not determined

Vapour density: not determined

Evaporation rate: not determined

9.2. Other information
Solid content: 1,5 %

SECTION 10: Stability and reactivity

10.1. Reactivity
No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability
The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions
No known hazardous reactions.

10.4. Conditions to avoid
none

10.5. Incompatible materials
No information available.

10.6. Hazardous decomposition products
No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity
Based on available data, the classification criteria are not met.

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

Sensitising 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.

STOT-single exposure
Based on available data, the classification criteria are not met.

STOT-repeated exposure
Based on available data, the classification criteria are not met.

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]. Special hazards arising from the substance or mixture!

SECTION 12: Ecological information

12.1. Toxicity
The product is not: Ecotoxic.

12.2. Persistence and degradability
The product has not been tested.

12.3. Bioaccumulative potential
The product has not been tested.

12.4. Mobility in soil
The product has not been tested.

12.5. Results of PBT and vPvB assessment
The product has not been tested.

12.6. Other adverse effects
No information available.

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

SECTION 13: Disposal considerations

13.1. 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.

SECTION 14: Transport information

Land transport (ADR/RID)

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

Classification code: CT1
Special Provisions: 274
Limited quantity: 1 L
Excepted quantity: E2
Transport category: 2
Hazard No: 86
Tunnel restriction code: E

Inland waterways transport (ADN)

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

Classification code: CT1
Special Provisions: 274 802
Limited quantity: 1 L
Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 2922
14.2. UN proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (Wasser)
14.3. Transport hazard class(es): 8
14.4. 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)
14.1. UN number: UN 2922
14.2. UN proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (Wasser)
14.3. Transport hazard class(es): 8
14.4. 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

14.5. Environmental hazards
ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user
Warning: Toxic. strongly corrosive.

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
EU regulatory information
Information according to 2012/18/EU (SEVESO III): H2 ACUTE TOXIC
National regulatory information
Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Water hazard class (D): 2 - obviously hazardous to water
Skin resorption/Sensitization: Permeates easily through outer skin and causes poisoning.

15.2. Chemical safety assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

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
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

**Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met. Corr. 1; H290</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Acute Tox. 2; H310</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Acute Tox. 3; H301</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Acute Tox. 4; H332</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Skin Corr. 1A; H314</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Eye Dam. 1; H318</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

**Relevant H and EUH statements (number and full text)**

- **H225** Highly flammable liquid and vapour.
- **H290** May be corrosive to metals.
- **H300** Fatal if swallowed.
- **H301** Toxic if swallowed.
- **H310** Fatal in contact with skin.
- **H314** Causes severe skin burns and eye damage.
- **H318** Causes serious eye damage.
- **H319** Causes serious eye irritation.
- **H330** Fatal if inhaled.
- **H332** Harmful if inhaled.

**Further Information**

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.)