

Safety Data Sheet

according to 29 CFR 1910.1200(g)

VITA CERAMICS ETCH

Revision date: 09.01.2017

Product code: 019-US

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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

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79704 Bad Säckingen

Telephone: +49(0)7761-562-0

Telefax: +49(0)7761-562-299

e-mail: info@vita-zahnfabrik.com

Internet: www.vita-zahnfabrik.com

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

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200

Hazard categories:

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

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.

Wash ... thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

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If swallowed: Rinse mouth. Do NOT induce vomiting.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 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.
 Specific treatment (see ... on this label).

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.

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. IF ON SKIN (or hair):
 Ca-Gluconate solution

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.

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.

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.

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Additional information

Suppress gases/vapours/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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/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

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.

Reference to other sections

Safe handling: see section 7
Personal protection equipment: 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/fumes/vapour/spray.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

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.

Advice on storage compatibility

No special measures are necessary.

8. Exposure controls/personal protection

Control parameters

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Exposure limits

CAS No.	Substance	ppm	mg/m ³	f/cc	Category	Origin
64-17-5	Ethanol	-	-		TWA (8 h)	ACGIH-2016
		1000			STEL (15 min)	ACGIH-2016
64-17-5	Ethyl alcohol (Ethanol)	1000	1900		TWA (8 h)	REL
64-17-5	Ethyl alcohol	1000	1900		TWA (8 h)	REL
7664-39-3	Hydrogen fluoride (as F)	3	-		TWA (8 h)	REL
7664-39-3	Hydrogen fluoride, as F	0.5			TWA (8 h)	ACGIH-2016
		2			Peak	ACGIH-2016
7664-39-3	Hydrogen fluoride	3	2.5		TWA (8 h)	REL
		C 6	C 5		Ceiling	REL
7664-93-9	Sulfuric acid (thoracic fraction)		0.2		TWA (8 h)	ACGIH-2016
7664-93-9	Sulfuric acid	-	1		TWA (8 h)	REL
		-	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/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 or drink.

Eye/face protection

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

Hand protection

Recommended glove articles KCL Dermatril P Wearing time with occasional contact (splashes): 480 min
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.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:

Color: light red
Odor: characteristic

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Test method

pH-Value: 2,0

Changes in the physical state

Melting point/freezing point: not determined

Initial boiling point and boiling range: 100 °C

Flammability

Solid: not applicable

Gas: not applicable

Lower explosion limits: not determined

Upper explosion limits: not determined

Auto-ignition temperature

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidizing.

Vapor pressure:
(at 50 °C) <=1100 hPa

Density: 1,06000 g/cm³

Solubility in other solvents

not determined

Partition coefficient: not determined

Vapor density: not determined

Evaporation rate: not determined

Other information

Solid content: 1,5 %

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

Incompatible materials

No information available.

Hazardous decomposition products

No known hazardous decomposition products.

11. Toxicological information

Information on toxicological effects

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Acute toxicity

Toxic if swallowed
 Fatal in contact with skin
 Harmful if inhaled

ATEmix calculated

ATE (oral) 104,2 mg/kg; ATE (dermal) 104,2 mg/kg; ATE (inhalative vapour) 10,42 mg/l; ATE (inhalative 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			
	inhalative vapour	ATE 0,5 mg/l			
	inhalative 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

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

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

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.

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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.

13. Disposal considerations

Waste treatment methods

Advice on disposal

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

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

14. Transport information

Marine transport (IMDG)

UN 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



Limited quantity:

1 L

Excepted quantity:

E2

EmS:

F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

UN 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



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

Special precautions for user

Warning: Toxic. strongly corrosive.

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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. < 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. < 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. < 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. < 50%) (7664-39-3): De minimis limit = 1.0 %, Reportable threshold = Standard

Clean Air Act Section 112(b):

Hydrofluoric acid (conc. < 50%) (7664-39-3)

State Regulations

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

This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

Revision date: 09.01.2017

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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%

Other data

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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