

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**BEECK Etching Fluid**

Print date: 19.03.2018

Product code: FWB\_B06

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

BEECK Etching Fluid

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

Acid sinterskin remover for facades.

Only for commercial use.

The product is to be used exclusively for the applications named in the technical data sheet or in the processing instructions.

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

Company name:	BEECK'SCHE FARBWERKE GmbH	
Street:	Gottlieb-Daimler-Strasse 4	
Place:	D-89150 Laichingen	
Telephone:	+49 (0) 7333 / 9607-11	Telefax: +49 (0) 7333 / 9607-10
e-mail:	info@beeck.com	
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Responsible Department:	Factory Laichingen, Gottlieb-Daimler-Str. 4, D-89150 Laichingen Tel. +49(0)7333/9607-11 Fax: +49(0)7333/9607-10 Mo-Fr: 8.00 -16.00 hour	
<b>1.4. Emergency telephone number:</b>	United Kingdom +44 870 600 626 / 0870 600 6266 GBK Gefahrgut Büro GmbH +49(0)6132/84463	

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

Indications of danger: C - Corrosive

R phrases:

Causes burns.

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard categories:

Skin corrosion/irritation: Skin Corr. 1B

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

Causes severe skin burns and eye damage.

**2.2. Label elements****Hazardous components which must be listed on the label**

Fluorosilicic acid

Signal word: Danger

Pictograms: GHS05



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### Hazard statements

H314 Causes severe skin burns and eye damage.

### Precautionary statements

P102 Keep out of reach of children.  
 P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P310 Immediately call a POISON CENTER/doctor.  
 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 Disposal in accordance with the official regulations.

### 2.3. Other hazards

Do not inhale vapours or smoke of heated product.  
 Gives off hydrogen by reaction with metals. This substance is inflammable.  
 Should not be released into the environment. A possible toxic effect on aquatic life cannot be ruled out as a result of the change in pH value.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

Water: > 70%

#### Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
241-034-8	Fluorosilicic acid	20 - < 25 %
16961-83-4	C - Corrosive R34	
009-011-00-5	Skin Corr. 1B; H314	

Full text of R-, H- and EUH-phrases: see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Call a physician or Poison Control Centre immediately.  
 Show this safety data sheet to the doctor in attendance. Lay the affected person down and keep him still; If unconscious, place the person in the recovery position. Do not administer liquids to the unconscious person and avoid vomiting.  
 Protection of first-aiders:  
 Wear personal protective equipment. (protective gloves, chemical-resistant; Safety glasses)  
 When vapors or aerosols: Use breathing apparatus. (respirator mask, Self-contained breathing apparatus)  
 Eye wash fountains and safety showers must be easily accessible.

#### After inhalation

Move out of dangerous area. Protection is needed for the First Aider. Move to fresh air. Victim to lie

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down in the recovery position, cover and keep him warm. In case of irregular breathing or respiratory arrest: Oxygen or artificial respiration, if needed. No artificial aspiration mouth-to-mouth or mouth to nose. Use suitable instruments/apparatus. Keep the respiratory tract clear. Call a physician immediately.

**After contact with skin**

Wash off immediately with plenty of water. (10 - 20 min)

Take off contaminated clothing and shoes immediately. Protection is needed for the First Aider. Wash contaminated skin areas thoroughly with soap and water. After large areas have been wet, use a (gushing) shower as soon as possible. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and badly. First treatment with calcium gluconate paste.

**After contact with eyes**

Rinse with plenty of water immediately, also under the eyelids, for at least 15 minutes. Remove contact lenses, if applicable. Protect unharmed eye. Consult an ophthalmologist immediately.

Rinse eyes continuously. After being affected by concentrated acid, irreversible damage may be prevented by 1 – 2 hours rinsing with physiological table salt. Take to an ophthalmologist immediately, whilst continuing to rinse.

**After ingestion**

Do not induce vomiting. Rinse mouth, spit liquid out. The affected person should slowly drink one glass of water. If possible drink milk afterwards. If swallowed, seek medical advice immediately and show this container or label. In the event of spontaneous nausea and unconsciousness, keep the head back and bring the patient into the recovery position. Never give anything by mouth to an unconscious person. Lay the affected person down, and keep her or him warm and calm.

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

The product causes burns of eyes, skin and mucous membranes. Corneal opacity. Conjunctivitis. Danger of blindness. Possible risk of irreversible effects.

Effects of skin contact may include tingling and sting. The injuries initially do not seem serious, but within a few hours the tissue swells, discolours and is extremely painful, together with strong sub-cutaneous necrosis.

The respiratory tract is burned by hexafluorosilicic acid vapour. Asthmatic appearance, cough. Inhaled corrosive substances can lead to a toxic oedema of the lungs.

Ingestion causes burns of the upper digestive and respiratory tracts. Ingestion may cause irritation of mouth and throat. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Ingestion of aqueous solution causes gastrointestinal burns. Danger of perforation !

Effects due to ingestion may include: thirst, sweating, spasm, breathing difficulties, lowered blood pressure, Central nervous system disorders.

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

Symptomatic treatment (decontamination and vital functions).

Symptoms of poisoning may not appear for several hours. Keep under medical supervision for at least 48 hours.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>), foam, sprayed water stream or dry powder.  
Use extinguishing measures that are appropriate to the environment.

**Unsuitable extinguishing media**

High volume water jet.

**5.2. Special hazards arising from the substance or mixture**

The product itself does not burn. Decomposes on heating. Formation of hydrogen fluoride, silicon tetrafluoride. The inhalation of hazardous decomposition products may cause serious health damage.

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Risk of bursting if heated. In sealed containers the internal pressure will rise. Water mist may be used to cool closed containers.

#### **5.3. Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus.  
Full protective flameproof clothing.

#### **Additional information**

For safety reasons in case of fire, cans should be stored separately in closed containments.  
Collect contaminated fire fighting water separately. Contaminated extinguishing water and soil must be disposed of in accordance with official regulations.

### SECTION 6: Accidental release measures

#### **6.1. Personal precautions, protective equipment and emergency procedures**

Wear personal protective equipment. Use respiratory equipment when gases, vapours/aerosols form.  
Avoid contact with skin and eyes. Keep unprotected people away. Ensure adequate ventilation.

#### **6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.  
Contact the responsible authority immediately if the product ends up in the soil, a body of water, or the sewer system.

#### **6.3. Methods and material for containment and cleaning up**

Spilled or leaking material is to be soaked up with non-flammable absorbent materials (sand, soil, diatomaceous earth) and put in containers. Large quantities: Containers made of the following material: chemical-resistant plastic. Breathing apparatus is to be worn for decanting large quantities without the use of an extraction exhaust.  
If spill area is on ground near valuable plants or trees, remove 5 cm of top soil after initial clean-up.  
Disposal in accordance with the official regulations. The containers must be sealed, marked and disposed of safely.

Waste from residues: Neutralize with lime milk or soda and flush with plenty of water.

#### **6.4. Reference to other sections**

Suitable protective equipment: See section 8.  
Dispose of as described in section 13.

### SECTION 7: Handling and storage

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

Use only in well-ventilated areas. Do not breathe in vapours. Handle and open container with care.  
Avoid contact with skin, eyes and clothing. Use personal protective equipment. Provide acid-resistant flooring.

##### **Advice on protection against fire and explosion**

The product is not flammable. Heating leads to an increase in pressure. Risk of receptacle bursting.

##### **Further information on handling**

See information supplied by the manufacturer. Comply with the health and safety at work laws. Handle, store and transport in compliance with local regulations and in labelled containers that are suitable for this product.

#### **7.2. Conditions for safe storage, including any incompatibilities**

##### **Requirements for storage rooms and vessels**

Store sealed in the original container. Keep in a dry, cool place. Protect from freezing. Already opened containers should be closed thoroughly and should be stored upright in order to prevent leakage.  
Do not use metal containers. Do not use glass containers.

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### Advice on storage compatibility

Store separately from: strong acids, alkalies.  
Keep away from combustible material. Do not store together with edibles.

### Further information on storage conditions

Smoking in the storage rooms is forbidden. Entry by unauthorized individuals is forbidden.  
Do not store outside. Store in compliance with the local regulations.

### 7.3. Specific end use(s)

No data available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

### 8.2. Exposure controls

#### Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. This can be achieved by local or space exhaust. If this is not sufficient, in order to hold the solvent vapour concentration lower than the occupational exposure limit an approved respiratory protection apparatus must be worn.

#### Protective and hygiene measures

A high standard of personal hygiene is required. Keep away from food, drink and animal food stuffs. When using, do not eat, drink, or smoke. Wash hands before breaks and at the end of the workday. Avoid contact with skin and eyes. Avoid contact with clothing. Do not breathe dust. Take off all contaminated clothing immediately. Remove and wash contaminated clothing before re-use. Eye wash fountains and safety showers must be easily accessible.

#### Eye/face protection

Safety glasses with side-shields (EN 166) or facial protection.

#### Hand protection

Protective gloves, chemical-resistant. The manufacturer recommends the following glove materials: butyl rubber, layer thickness: 0,7 mm. Penetration time of the glove material:  $\geq 480$  min (or  $\geq 8$ h). Safety gloves should be selected for the actual conditions of use and in accordance with the instructions for use provided by the manufacturer.  
Please note that the daily use of a chemical glove in practice may be considerably shorter than the permeation time calculated in EN 374 as a result of many different factors (for example temperature). Protective gloves should be replaced immediately if damaged or in case of signs of wear.

Preventive skin protection: skin protection cream.

#### Skin protection

Impervious clothing, apron, protective gloves. Chemical-resistant safety shoes or boots.  
Wear face-shield and protective suit for abnormal processing problems.

No rings, watches or similar things should be worn. Product residues can remain and, therefore, can trigger skin reactions.

#### Respiratory protection

In order to avoid inhalation of spray-mist and sanding dust, all spraying and sanding must be done wearing adequate respirator.  
Use respiratory equipment when gases, vapours/aerosols form. Respirator with combination filter for vapour/particulate. (gas filter type B / P2 )

## SECTION 9: Physical and chemical properties

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

Physical state:	liquid
Colour:	colourless resptv.

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Odour: weakly pungent

### Test method

pH-Value: 1

### Changes in the physical state

Melting point: No data available.

Flash point: n.a.

### Explosive properties

The product is not explosive.

Lower explosion limits: n.a.

Upper explosion limits: n.a.

Ignition temperature: n.a.

### Auto-ignition temperature

Solid: No data available.

Gas: No data available.

Decomposition temperature: No data available.

### Oxidizing properties

None.

Vapour pressure: No data available.

Density: 1,20 g/cm<sup>3</sup>

Bulk density: n.a.

Water solubility: miscible

Partition coefficient: No data available.

Viscosity / dynamic: <500 mPa·s

Viscosity / kinematic: No data available.

Vapour density: No data available.

Evaporation rate: No data available.

### 9.2. Other information

No data available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

Stable under proper storage and handling.

### 10.3. Possibility of hazardous reactions

Reacts with: alkalies. Exothermic reaction with strong acids. Release of: hydrogen fluoride.

### 10.4. Conditions to avoid

Can form dangerous decomposition products when exposed to high temperatures. (HF)

### 10.5. Incompatible materials

metals, Incompatible with strong acids and bases.

leather, The active substance can solubilise rubber and various plastics. (e.g. natural rubber)

### 10.6. Hazardous decomposition products

Thermal decomposition: Formation of hydrogen fluoride, siliciumtetrafluoride.

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### Further information

Do not use metal containers.  
Has a corroding effect on ceramic and glass.  
Do not apply to natural stone that contains iron.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicokinetics, metabolism and distribution

No data available.

#### Acute toxicity

Causes burns.

hydrogen fluoride:

LC50/inhalation/1h/mouse: 342 ppm

LC50/inhalation/1h/rat: 1276 ppm

Na<sub>2</sub>SiF<sub>6</sub>:

LD50/oral/rat: 125 mg/kg

LD50/oral/guinea pig: 500 mg/kg

#### Irritation and corrosivity

The product causes burns of eyes, skin and mucous membranes. Danger of blindness.  
The respiratory tract is burned by hexafluorosilicic acid vapour.

#### Sensitising effects

No data available.

#### STOT-single exposure

No data available.

#### Carcinogenic/mutagenic/toxic effects for reproduction

No data available. .

## SECTION 12: Ecological information

### 12.1. Toxicity

No data is available on the product itself.

A possible toxic effect on aquatic life cannot be ruled out as a result of the change in pH value .

### 12.2. Persistence and degradability

No data available.

### 12.3. Bioaccumulative potential

Bioaccumulation is possible.

### 12.4. Mobility in soil

Mobility in the ground is low.

### 12.5. Results of PBT and vPvB assessment

The product does not contain any substance which meets the PBT criteria  
(persistent/bio-accumulative/toxic) or the vPvB criteria (very persistent/very bio-accumulative).

### 12.6. Other adverse effects

No data available.

### Further information

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.

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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Advice on disposal

Must be sent for special treatment in accordance with local authority regulations.

#### Waste disposal number of waste from residues/unused products

060106 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of acids; other acids  
Classified as hazardous waste.

#### Waste disposal number of used product

060106 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of acids; other acids  
Classified as hazardous waste.

#### Waste disposal number of contaminated packaging

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging

#### Contaminated packaging

Packaging can be sent for recycling after being emptied and cleaned. Dispose of non-cleansing packaging in the same way as the product.

## SECTION 14: Transport information

### Land transport (ADR/RID)

**14.1. UN number:** UN 1778  
**14.2. UN proper shipping name:** FLUOROSILICIC ACID  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8



Classification code: C1  
 Special Provisions: -  
 Limited quantity: 1 L  
 Excepted quantity: E2  
 Transport category: 2  
 Hazard No: 80  
 Tunnel restriction code: E

### Inland waterways transport (ADN)

**14.1. UN number:** UN 1778  
**14.2. UN proper shipping name:** FLUOROSILICIC ACID  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8





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Classification code: C1  
 Special Provisions: -  
 Limited quantity: 1 L  
 Excepted quantity: E2

#### Marine transport (IMDG)

**14.1. UN number:** UN 1778  
**14.2. UN proper shipping name:** FLUOROSILICIC ACID  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8



Marine pollutant: n.d.a  
 Special Provisions: -  
 Limited quantity: 1 L  
 Excepted quantity: E2  
 EmS: F-A, S-B

#### Air transport (ICAO)

**14.1. UN number:** UN 1778  
**14.2. UN proper shipping name:** FLUOROSILICIC ACID  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8



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

Keep away from food, drink and animal food stuffs.

#### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information available.

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### EU regulatory information

2004/42/EC (VOC): VOC value (%): n.a.

##### Additional information

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SVHC: No data available.

**National regulatory information**

Employment restrictions:

Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.

Water contaminating class (D):

2 - water contaminating

**15.2. Chemical safety assessment**

For this substance a chemical safety assessment has been carried out.

**SECTION 16: Other information****Abbreviations and acronyms**

n.a. = not applicable

n.d. = not determined

n.d.a. = no data available

VOC = Volatile organic compounds

SVHC = substance of very high concern

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006

GHS = Globally Harmonized System

CLP = Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

**Relevant R-phrases (Number and full text)**

34 Causes burns.

**Relevant H- and EUH-phrases (Number and full text)**

H314 Causes severe skin burns and eye damage.

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