



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 10.03.2015

Version number 10

Revision: 10.03.2015

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

- **1.1 Product identifier**
- **Trade name: KEIM Ätzflüssigkeit (Lime Remover)**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture**
Pre-treatment and cleaning agent for render surfaces.
- **Uses advised against** All other uses are not recommended.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
KEIM MINERAL PAINTS LTD
Santok Building
Deer Park Way
Donnington Wood
Telford
Shropshire
TF2 7NA
United Kingdom
Tel: +44 1952 231250
Fax: +44 1952 231251
Url: <http://www.keimpaints.co.uk>
- **Further information obtainable from:**
David Pratt
Telefon: +44 1952 231250
E-Mail: sales@keimpaints.co.uk
- **1.4 Emergency telephone number:**
GBK Gefahrgut Büro GmbH
Emergency number: +49(0)6132/84463

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Acute Tox. 4 H302 Harmful if swallowed.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
C; Corrosive
R34: Causes burns.
Xn; Harmful
R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

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Hazard pictograms


GHS05 GHS07

Signal word Danger

Hazard-determining components of labelling:

 fluorosilicic acid
 hydrogen fluoride

Hazard statements

 H302 Harmful if swallowed.
 H314 Causes severe skin burns and eye damage.

Precautionary statements

 P260 Do not breathe spray.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards
Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 16961-83-4 EINECS: 241-034-8 Index number: 009-011-00-5	fluorosilicic acid C R34 Skin Corr. 1B, H314	2.5-10%
CAS: 7664-39-3 EINECS: 231-634-8 Index number: 009-003-00-1	hydrogen fluoride T+ R26/27/28; C R35 Acute Tox. 2, H300; Acute Tox. 1, H310; Acute Tox. 2, H330; Skin Corr. 1A, H314	< 0.5%

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

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SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
When seeing the doctor we suggest to present this safety data sheet.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
Keep affected person warm and quiet.
In case of unconsciousness place patient stably in side position for transportation.
Do not use mouth to mouth or mouth to nose resuscitation.
Use a respiratory bag or breathing device.
- **After skin contact:**
Immediately rinse with water.
Rub in Ca-gluconate solution or Ca-gluconate gel immediately.
Seek medical treatment.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
Medical supervision for at least 48 hours.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
Water haze, extinguishing powder, alcohol resistant foam, CO₂, sand.
Product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.
- **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Hydrogen fluoride (HF)
silicon tetrafluoride
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information**
Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
In case of fire do not breath smoke, fumes and vapours.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Respect the protection rules (see section 7 a. 8).

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- Wear protective clothing.
- Mount respiratory protective device.
- Avoid contact with skin and eyes.
- Keep people at a distance and stay on the windward side.
- **6.2 Environmental precautions:**
 - Do not allow product to reach soil, sewage system or any water course.
 - Inform respective authorities in case of seepage into water course or sewage system.
 - Follow local governmental rules and regulations.
- **6.3 Methods and material for containment and cleaning up:**
 - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 - Use neutralising agent.
 - Dispose of the material collected according to regulations.
 - Fill in labelled, lockable containers.
 - Dispose contaminated material as waste according to item 13.
 - Clear contaminated areas thoroughly.
- **6.4 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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
 - Keep receptacles tightly sealed.
 - Ensure good ventilation/exhaustion at the workplace.
 - Avoid contact with skin and eyes.
 - Do not inhale aerosole.
 - See item 8 for information about suitable protective equipment and technical precautions.
 - Respect the protection rules.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:**
 - Store only in the original receptacle.
 - glass and silicate containing materials are affected
 - Drip pan to be provided.
 - **Information about storage in one common storage facility:**
 - Store away from metals.
 - Do not store together with alkalis (caustic solutions).
 - **Further information about storage conditions:**
 - Store in a cool place.
 - Protect from frost.
 - Keep container tightly sealed.
 - Protect from heat and direct sunlight.
 - **Storage class:** 8BL
- **7.3 Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

7664-39-3 hydrogen fluoride

WEL	Short-term value: 2.5 mg/m ³ , 3 ppm
	Long-term value: 1.5 mg/m ³ , 1.8 ppm

- **Additional information:** The lists valid during the making were used as basis.

- **8.2 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.
 Avoid contact with the eyes and skin.
 Do not inhale aerosols.

- **Respiratory protection:**

Use suitable respiratory protective device only when aerosol or mist is formed.
 Combination filter B2/P2

- **Protection of hands:** Protective gloves

- **Material of gloves**

suitable material e.g.:
 Natural rubber, NR
 Recommended thickness of the material: ≥ 0.5 mm
 Chloroprene rubber, CR
 Recommended thickness of the material: ≥ 0.5 mm
 Fluorocarbon rubber (Viton)
 Recommended thickness of the material: ≥ 0.7 mm

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**

Value for the permeation: Level ≥ 6 (480 min)
 The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

- **Eye protection:**

Face protection
 Tightly sealed goggles

- **Body protection:**

Protective work clothing
 Acid resistant protective clothing

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Fluid
 Colour: light pink, transparent

· Odour: Characteristic

· Odour threshold: Not determined.

· pH-value at 20 °C: ~1
 Acidic

· Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: ~100 °C

· Flash point: Not applicable.

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature:

Decomposition temperature: Not determined.

· Self-igniting: Product is not selfigniting.

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

· Explosion limits:

Lower: Not determined.

Upper: Not determined.

· Vapour pressure at 20 °C: ~23 hPa

· Density at 20 °C: 1.1* g/cm³

· Relative density: Not determined.

· Vapour density: Not applicable.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with water:

Fully miscible.

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

· Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

· 9.2 Other information

* The values are for freshly produced material and may change with the time.

SECTION 10: Stability and reactivity

· 10.1 Reactivity

· 10.2 Chemical stability

· Thermal decomposition / conditions to be avoided:

To avoid thermal decomposition do not overheat.

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- **10.3 Possibility of hazardous reactions** Corrosive action on metals.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
 - Bases
 - Metals
- **10.6 Hazardous decomposition products:**
 - In case of fire, the following can be released:
 - Hydrogen fluoride
 - silicon tetrafluoride
 - No hazardous decomposition products if stored and handled as prescribed.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

16961-83-4 fluorosilicic acid

Oral	LD50	430 mg/kg (rat)
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7664-39-3 hydrogen fluoride

Inhalative	LC 50/1h	0.82 mg/l (rat)
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- **Primary irritant effect:**
 - **on the skin:** Caustic effect on skin and mucous membranes.
 - **on the eye:** Strong caustic effect.
 - **during inhalation:** Irritating to respiratory system.
 - **during swallowing:** harmful
- **Sensitisation:** No sensitising effects known.
- **Other information (about experimental toxicology):**
 - Experimental analysis are not available.
- **Additional toxicological information:**
 - The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
 - Harmful
 - Corrosive

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

16961-83-4 fluorosilicic acid

EC 0	10 mg/l (algae) (96h)	
	100 mg/l (bacteria) (24h)	
LC 50/96 h	65 mg/l (fish)	

7664-39-3 hydrogen fluoride

EC 50/48h	97 mg/l (daphnia)	
EC 50/96h	43 mg/l (algae)	
LC 50/48h	299 mg/l (fish)	

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LC 50/96 h	51 mg/l (fish)
NOEC	231 mg/l (bacteria) (16h)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **AOX-indication:**
Due to the substance of content which do not include organic jointed halogens, the product can not take influence on the AOX-load of the waste water.
- **According to the formulation contains the following heavy metals and compounds from the EU guideline NO. 2006/11/EC:**
According to our current data base the product does not consist of any heavy metals or substances of EU-directives 76/464/EWG.
- **General notes:**
At present there are no ecotoxicological assessments.
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Disposal must be made according to official regulations.
- **European waste catalogue**
- 06 01 99 wastes not otherwise specified
- **Uncleaned packaging:**
- **Recommendation:**
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1778
- **14.2 UN proper shipping name**
- **ADR** 1778 FLUOROSILICIC ACID solution
- **IMDG, IATA** FLUOROSILICIC ACID solution

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· **14.3 Transport hazard class(es)**

· **ADR, IMDG, IATA**



· **Class** 8 Corrosive substances.
 · **Label** 8

· **14.4 Packing group**

· **ADR, IMDG, IATA** II

· **14.5 Environmental hazards:**

· **Marine pollutant:** No

· **14.6 Special precautions for user**

· **Danger code (Kemler):** Warning: Corrosive substances.
 80
 · **EMS Number:** F-A,S-B
 · **Segregation groups** Acids

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

Not applicable.

· **Transport/Additional information:** metal corrosive

· **ADR**

· **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
 · **Transport category** 2
 · **Tunnel restriction code** E

· **IMDG**

· **Limited quantities (LQ)** 5L
 · **Excepted quantities (EQ)** Code: E1
 Maximum net quantity per inner packaging:
 30 ml
 Maximum net quantity per outer packaging:
 1000 ml

· **UN "Model Regulation":**

UN1778, FLUOROSILICIC ACID solution, 8,
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SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Other regulations, limitations and prohibitive regulations**
- **Please note:**
 - TRGS 200 (Germany)
 - TRGS 500 (Germany)
 - TRGS 510 (Germany)
 - TRGS 900 (Germany)
- **Product-Code/Giscode:** GF50
- **15.2 Chemical safety assessment:**
A Chemical Safety Assessment has not been carried out.

SECTION 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.

- **Relevant phrases**
 - H300 Fatal if swallowed.
 - H310 Fatal in contact with skin.
 - H314 Causes severe skin burns and eye damage.
 - H330 Fatal if inhaled.
- R26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.
- R34 Causes burns.
- R35 Causes severe burns.
- **Department issuing MSDS:** KEIMFARBEN Germany, Product safety department
- **Contact:** Mrs. Popescu
- **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 Harmonised 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 (division of the American Chemical Society)
 - TRGS: Technische Regeln für Gefahrstoffe (Technical Rules for Dangerous Substances, BAuA, Germany)
 - VOC: Volatile Organic Compounds (USA, EU)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
 - EC10: Effective concentration at 10% mortality rate.
 - EC50: Half maximal effective concentration.
 - LC10: Lethal concentration at 10% mortality rate.
 - NOEC: No observed effect concentration.
 - REACH: Registration, Evaluation and Authorisation of Chemicals (Regulation (EC) No.1907/2006)
 - Acute Tox. 2: Acute toxicity, Hazard Category 2
 - Acute Tox. 4: Acute toxicity, Hazard Category 4

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Acute Tox. 1: Acute toxicity, Hazard Category 1
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

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

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