



Safety data sheet according to 1907/2006/EC, Article 31

Printing date 14.07.2017



Version number 11

Revision: 14.07.2017

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

- **1.1 Product identifier**
- **Trade name: KEIM CONCRETE-CLEANER
(BETONSCHNELLREINIGER)**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture** Cleaning agent for concrete and 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 GB-Telford, Shropshire TF2 7NA
Tel +44 1952 231 250 / Fax +44 1952 231 251
www.keimpaints.co.uk / sales@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 GmbH Global Regulatory Compliance
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**
Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H312 Harmful in contact with skin.
Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**

GHS05 GHS07
- **Signal word** Danger
- **Hazard-determining components of labelling:**
fluorosilicic acid
hydrofluoric acid
Isotridecanol, ethoxylated (≥ 2.5 - ≤ 7 EO)

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Hazard statements

H302+H312 Harmful if swallowed or in contact with skin.

H314 Causes severe skin burns and eye damage.

Precautionary statements

P102 Keep out of reach of children.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P309 IF exposed or if you feel unwell:

P315 Get immediate medical advice/attention.

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): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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: Cleaning agent based on fluorosilicic acid.

Dangerous components:

CAS: 16961-83-4 EINECS: 241-034-8 Index number: 009-011-00-5	fluorosilicic acid ☞ Skin Corr. 1B, H314	10-25%
CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5 Reg.nr.: 01-2119457610-43-XXXX	ethanol ☞ Flam. Liq. 2, H225; ☞ Eye Irrit. 2, H319	≤ 2.5%
CAS: 69011-36-5	Isotridecanol, ethoxylated (≥2.5 - ≤7 EO) ☞ Eye Dam. 1, H318	≤ 2.5%
CAS: 7664-39-3 EINECS: 231-634-8 Index number: 009-003-00-1	hydrofluoric acid ☞ 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 hazard 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 or oxygen; call for doctor.
Keep affected person warm and quiet.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.
Do not use solvents or thinners.
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.
Calcium gluconate solution.

· **After swallowing:**

Rinse mouth and throat well with water.
Do not induce vomiting; call for medical help immediately.
give to drink calcium gluconate solution

· **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**

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:**

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

Formation of toxic gases is possible during heating or in case of fire.

· **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.

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In case of fire do not breathe smoke, fumes and vapours.

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SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.

Keep people at a distance and stay on the windward side.

Avoid contact with skin and eyes.

· **6.2 Environmental precautions:**

Do not allow product to reach soil, sewage system or any water course.

Follow local governmental rules and regulations.

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Fill in labelled, lockable containers.

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

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**

Avoid contact with skin and eyes.

Do not inhale aerosols.

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

See item 8 for information about suitable protective equipment and technical precautions. Respect the protection rules.

· **Information about fire - and explosion protection:**

The product is not flammable.

No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Keep in the original containers in a cool and dry place.

Store only in unopened original receptacles.

Drip pan to be provided.

· **Information about storage in one common storage facility:**

Do not store together with alkalis (caustic solutions).

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- Store away from metals.
- **Further information about storage conditions:**
Protect from frost.
Keep container tightly sealed.
Protect from heat and direct sunlight.
- **Storage class:** 8B
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

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

64-17-5 ethanol

WEL Long-term value: 1920 mg/m³, 1000 ppm

7664-39-3 hydrofluoric acid

WEL Short-term value: 2.5 mg/m³, 3 ppm
Long-term value: 1.5 mg/m³, 1.8 ppm

· **DNELs**

64-17-5 ethanol

Oral	Long-term - systemic effects, consumer	87 mg/kg/day (consumer)
Dermal	Long-term - systemic effects, worker	343 mg/kg bw/day (worker)
	Long-term - systemic effects, consumer	206 mg/kg/day (consumer)
Inhalative	Acute - local effects, worker	1,900 (worker)
	Acute - local effects, consumer	950 mg/m ³ (consumer)
	Long-term - systemic effects, worker	950 mg/m ³ (worker)
	Long-term - systemic effects, consumer	114 mg/m ³ (consumer)

· **PNECs**

64-17-5 ethanol

Aquatic compartment - freshwater	0.96 mg/l (freshwater)
Aquatic compartment - marine water	0.79 mg/l (marine water)
Aquatic compartment - water, intermittent releases	2.75 mg/l (not specified)
Aquatic compartment - sediment in freshwater	3.6 mg/kg sed dw (sediment fresh water)
Aquatic compartment - sediment in marine water	2.9 mg/kg sed dw (sediment marine water)
Terrestrial compartment - soil	0.63 mg/kg dw (soil)
Sewage treatment plant	580 mg/l (sewage treatment plant)

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

· **8.2 Exposure controls**

- **Personal protective equipment:**
- **General protective and hygienic measures:**
Avoid contact with the eyes and skin.

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Do not inhale aerosols.

Wash hands before breaks and at the end of work.

Immediately remove all soiled and contaminated clothing

· **Respiratory protection:**

Use suitable respiratory protective device only when aerosol or mist is formed.

Combination filter B-P2

· **Protection of hands:** Acid resistant gloves

· **Material of gloves**

suitable material e.g.:

Chloroprene rubber, CR

Recommended thickness of the material: ≥ 0.5 mm

Natural rubber, NR

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.

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Tightly sealed goggles

if applicable face protection

· **Body protection:** Acid resistant protective clothing

· **Limitation and supervision of exposure into the environment** See Section 12 and 6.2

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:

Fluid

Colour:

transparent colourless

· **Odour:**

Pungent

· **Odour threshold:**

Not determined.

· **pH-value at 20 °C:**

~1

· **Change in condition**

· **Melting point/freezing point:**

Undetermined.

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Initial boiling point and boiling range: ~100 °C	
· Flash point:	Not applicable.
· Flammability (solid, gas):	Not applicable.
· Ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not applicable.
Upper:	Not applicable.
· Oxidising properties	Not applicable.
· Vapour pressure at 20 °C:	~23 hPa
· Density at 20 °C:	1.1-1.2* g/cm ³
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· 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** No further relevant information available.
- **10.2 Chemical stability** Stable under normal conditions of storage and use.
- **Thermal decomposition / conditions to be avoided:**
To avoid thermal decomposition do not overheat.
- **10.3 Possibility of hazardous reactions**
Violent reactions with strong alkalis and oxidising agents.
Reacts with light alloys to form hydrogen.
Corrosive action on metals.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
Bases
Metals

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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**

Harmful if swallowed or in contact with skin.

LD/LC50 values relevant for classification:**16961-83-4 fluorosilicic acid**

Oral	LD50	430 mg/kg (rat)
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64-17-5 ethanol

Oral	LD50	10,470 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	38 mg/l (rat)

69011-36-5 Isotridecanol, ethoxylated ($\geq 2.5 - \leq 7$ EO)

Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
	NOAEL	>250 mg/kg (rat)

7664-39-3 hydrofluoric acid

Inhalative	LC 50/1h	0.82 mg/l (rat)
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Primary irritant effect:**Skin corrosion/irritation**

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Causes serious eye damage.

during inhalation: Irritant effect possible.**during swallowing:**

Swallowing will lead to a caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.**Other information (about experimental toxicology):**

Experimental analysis are not available.

The product was not tested. The statements on toxicology have been derived from the properties of the individual components.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction) not applicable**Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Based on available data, the classification criteria are not met.**STOT-single exposure** Based on available data, the classification criteria are not met.

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- **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.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

16961-83-4 fluorosilicic acid

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

64-17-5 ethanol

EC 50/48h	>1,000 mg/l (bacteria)
	>5,000 mg/l (daphnia)
EC 50/72 h	>100 mg/l (algae)
LC 50/96 h	>2,000 mg/l (fish)

69011-36-5 Isotridecanol, ethoxylated (≥2.5 - ≤7 EO)

NOEC	1.73 mg/l (fish)
	21 mg/l (daphnia)
NOEC	220 mg/kg (Soil macro-organisms)
	10 mg/kg (plants) (OECD/ 208)
EC 50/48h	>1-10 mg/l (daphnia) (OECD/ 202)
EC 50/72 h	>1-10 mg/l (algae) (OECD/ 201)
EC 50	140 mg/l (activated sludge)
LC 50/96 h	1-10 mg/l (freshwater fish) (OECD/ 203)

7664-39-3 hydrofluoric acid

NOEC	231 mg/l (bacteria) (16h)
EC 50/48h	97 mg/l (daphnia)
EC 50/96h	43 mg/l (algae)
LC 50/96 h	51 mg/l (fish)
LC 50/48h	299 mg/l (fish)

- **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.

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- **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.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Do not allow product to reach ground water, water course or sewage system.
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**
Disposal must be made according to official regulations.
Must not be disposed with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

06 01 06*	other acids
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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary 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 |
| · IMDG, IATA | FLUOROSILICIC ACID |

- **14.3 Transport hazard class(es)**
- **ADR, IMDG, IATA**



- **Class** 8 Corrosive substances.

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· 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): · EMS Number: · Segregation groups · Stowage Category	Warning: Corrosive substances. 80 F-A,S-B Acids A
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	metal corrosive
· ADR · Limited quantities (LQ) · Excepted quantities (EQ) · Transport category · Tunnel restriction code	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml 2 E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1778 FLUOROSILICIC ACID, 8, II

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**
For information on labelling please refer to section 2 of this document.
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **National regulations:**
- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Other regulations, limitations and prohibitive regulations**
- **Substances of very high concern (SVHC) according to REACH, Article 57** not applicable

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· **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**

H225 Highly flammable liquid and vapour.
H300 Fatal 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.

· **Department issuing SDS:** KEIMFARBEN Germany, Product safety department

· **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)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
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)
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 2: Acute toxicity – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 1: Acute toxicity – Category 1
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

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