



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

Printing date 09.08.2016

Version number 10

Revision: 09.08.2016

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

- **1.1 Product identifier**
- **Trade name: KEIM FIXIERMITTEL**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture**
Aqueous potassium silicate solution for the adjustment of painting in KEIM-A-technique.
- **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**
The product is not classified according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **2.3 Other hazards** Alkaline product. Avoid contact with skin and eyes.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Aqueous solution of alkali silicate
- **Dangerous components:**

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CAS: 1336-21-6 EINECS: 215-647-6 Index number: 007-001-01-2 Reg.nr.: 2119488876-14-XXXX	ammonia, aqueous solution ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400	(Contd. of page 1) < 0.5%
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- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

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; consult doctor in case of complaints.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Do not use solvents or thinners.

If skin irritation continues, consult a doctor.

· **After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Rinse mouth and throat well with 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

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:

silicon dioxid (SiO₂)

Nitrogen oxides (NO_x)

· 5.3 Advice for firefighters

- **Protective equipment:** Wear self-contained respiratory protective device.

· **Additional information**

Cool endangered receptacles with water spray.

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

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Avoid contact with skin and eyes.
Do not inhale fumes.
Respect the protection rules (see section 7 a. 8).
- **6.2 Environmental precautions:**
Do not allow product to reach soil, sewage system or any water course.
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).
Dispose of the material collected according to regulations.
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.
Avoid contact with skin and eyes.
Do not inhale aerosols.
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:**
Store only in unopened original receptacles.
Keep in the original containers in a cool and dry place.
 - **Information about storage in one common storage facility:**
Store away from metals.
Do not store together with acids.
 - **Further information about storage conditions:**
Protect from frost.
Store in a cool place.
Protect from heat and direct sunlight.
 - **Storage class: 12**
- **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:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **DNELs**

1336-21-6 ammonia, aqueous solution

Oral	Long-term - systemic effects, consumer	6.8 mg/kg/day (consumer)
	Acute - local effects, consumer	6.8 mg/kg/day (consumer)
Dermal	Acute - local effects, worker	68 mg/kg (worker)
	Acute - local effects, consumer	68 mg/kg/day (consumer)
	Long-term - systemic effects, worker	68 mg/kg bw/day (worker)
	Long-term - systemic effects, consumer	68 mg/kg/day (consumer)
Inhalative	Acute-systemic effects, worker	47.6 mg/m ³ (worker)
	Acute-systemic effects, consumer	23.8 mg/m ³ (consumer)
	Acute - local effects, consumer	7.2 mg/m ³ (consumer)
		36 mg/m ³ (worker)
	Long-term - systemic effects, worker	47.6 mg/m ³ (worker)
	Long-term - systemic effects, consumer	23.8 mg/m ³ (consumer)
	Long-term - local effects, worker	14 mg/m ³ (worker)
	Long-term - local effects, consumer	2.8 (consumer)

· **PNECs**

1336-21-6 ammonia, aqueous solution

Aquatic compartment - freshwater	0.0011 mg/l (freshwater)
Aquatic compartment - marine water	0.0011 mg/l (marine water)

· **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.

Do not inhale aerosols.

Wash hands before breaks and at the end of work.

Immediately remove all soiled and contaminated clothing

· **Respiratory protection:**

In insufficiently ventilated working areas and during spray-processing a breathing protection is necessary.

Filter B

· **Protection of hands:** Protective gloves

· **Material of gloves**

suitable material e.g.:

Butyl rubber, BR

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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**· Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties**· General Information****· Appearance:**

Form:	Fluid
Colour:	Colourless
· Odour:	Ammonia-like
· Odour threshold:	Not determined.

· pH-value at 20 °C: 11.4***· 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:** Not determined.**· Self-igniting:** Product is not selfigniting.**· Danger of explosion:** 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:	1.17* g/cm ³
· Relative density	Not determined.
· Vapour density	Not applicable.

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· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	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:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
Metals
Acids
glass and silicate containing materials are affected
- **10.6 Hazardous decomposition products:**
In case of fire, the following can be released:
Corrosive gases/vapours
silicon dioxid (SiO₂)
Nitrogen oxides (NO_x)
No hazardous decomposition products if stored and handled as prescribed.

SECTION 11: Toxicological information

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

LD/LC50 values relevant for classification:**1336-21-6 ammonia, aqueous solution**

Oral | LD50 | 350 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Frequent persistent contact with the skin may cause skin irritation.
- **Serious eye damage/irritation** In case of longer exposure, slightly irritating effect is possible.
- **during inhalation:** Irritant effect possible.
- **during swallowing:** Irritant effect possible
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

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- **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.
- **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:

1336-21-6 ammonia, aqueous solution

EC 50/48h 24.4 mg/l (daphnia)

LC 50/96 h 0.8 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.
- **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 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow product to reach ground water, water course or sewage system.
- **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 with household garbage. Do not allow product to reach sewage system.

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Disposal must be made according to official regulations.

· European waste catalogue

06 02 99 | wastes not otherwise specified

- **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	Void
· 14.2 UN proper shipping name · ADR, IMDG, IATA	Void
· 14.3 Transport hazard class(es) · ADR, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	No dangerous good in sense of these transport regulations.
· UN "Model Regulation":	Void

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **National regulations:**
- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly 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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- **Product-Code/Giscode:** M-SK02
- **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**

H314 Causes severe skin burns and eye damage.
H400 Very toxic to aquatic life.

- **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)
VOC: Volatile Organic Compounds (USA, EU)
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
REACH: Registration, Evaluation and Authorisation of Chemicals (Regulation (EC) No.1907/2006)
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

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