

Safety Data Sheet

according to 1907/2006/EC, Article 31



Printing date 09.09.2010

Revision: 09.09.2010

1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** **KEIM Silan Primer**
- **Application of the substance / the preparation** Priming
- **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
- **Information in case of emergency:**
 GBK Gefahrgut Büro GmbH
 Emergency number: +49(0)6132/84463

2 Hazards identification

- **Hazard description:**
 F Highly flammable
- **Information concerning particular hazards for human and environment:**
 R 11 Highly flammable.
 R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Classification system:**
 The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Alkylalkoxysilane / silanes + ethanol

- **Dangerous components:**

CAS: 64-17-5 EINECS: 200-578-6	ethanol F; R 11	50-100%
CAS: 35435-21-3 EINECS: 252-558-1	Triethoxy(2,4,4-trimethylpentyl)silane R 10-52/53	10-25%
CAS: 64742-49-0 EINECS: 265-151-9	Naphtha (petroleum), hydrotreated light Xn, Xi, F, N; R 11-38-51/53-65-67	< 1%
CAS: 110-54-3 EINECS: 203-777-6	n-hexane Xn, Xi, F, N; R 11-38-48/20-62-51/53-65-67	< 1%

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

4 First aid measures

- **General information:** 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:**
Wash off immediately with water and soap and rinse well afterwards.
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.

5 Fire-fighting measures

- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards caused by the substance, its products of combustion or resulting gases:**
In case of fire, the following can be released:
carbon oxide (CO_x)
silicon dioxide (SiO₂)
- **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.

6 Accidental release measures

- **Person-related safety precautions:**
Keep away from ignition sources.
Avoid contact with skin and eyes.
Do not inhale fumes.
Particular danger of slipping on leaked/spilled product.
Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**
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.
- **Measures for cleaning/collecting:**
Absorb with non-combustible liquid-binding material (sand, diatomite, vermiculite).
Ensure adequate ventilation.
Dispose of the material collected according to regulations.
Clear contaminated areas thoroughly.

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- **Additional information:** Eliminate all sources of ignition.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
 - Ensure good ventilation/exhaustion at the workplace.
 - Keep receptacles tightly sealed.
 - Prevent formation of aerosols.
 - Avoid contact with skin and eyes.
 - See item 8 for information about suitable protective equipment and technical precautions.
 - Respect the protection rules.
- **Information about fire - and explosion protection:**
 - Use explosion-proof apparatus / fittings and spark-proof tools.
 - Keep ignition sources away - Do not smoke.
 - Protect against electrostatic charges.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 - Store in a cool location.
 - Store only in unopened original receptacles.
- **Information about storage in one common storage facility:**
 - Store away from oxidizing agents.
 - Store away from water.
- **Further information about storage conditions:**
 - Protect from humidity and water.
 - Store receptacle in a well ventilated area.
 - Keep container tightly sealed.
 - Protect from heat and direct sunlight.
- **Storage class:** 3A

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

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

64-17-5 ethanol

WEL	Long-term value: 1920 mg/m ³ , 1000 ppm
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110-54-3 n-hexane (< 1%)

WEL	Long-term value: 72 mg/m ³ , 20 ppm
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- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Do not eat, drink, smoke or sniff while working.
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes and skin.
 - Do not inhale aerosols.
- **Respiratory protection:** In case of long or strong exposure: das mask filter ABEK.
- **Protection of hands:** Protective gloves
- **Material of gloves**
 - suitable material e.g.:

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Butyl rubber, BR

Recommended thickness of the material: ≥ 0.5 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 ≥ 3 (60 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:** Tightly sealed goggles
- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **General Information**

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

- **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	78°C

· Flash point:	4°C (DIN 51755)
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· Ignition temperature:	360°C (DIN 51794)
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· Self-igniting:	Product is not selfigniting.
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· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
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- **Explosion limits:**

Lower:	Not determined
Upper:	Not determined

· Oxidizing properties	Not applicable
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· Vapour pressure at 20°C:	55.9 hPa
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· Density at 25°C:	0.8 * g/cm ³
· Vapour density	Not applicable
· Evaporation rate	Not applicable

· Solubility in / Miscibility with water:	Hydrolized.
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· pH-value:	Not applicable
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· Segregation coefficient (n-octanol/water):	Not applicable
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· Viscosity:	
Dynamic at 20°C:	1.27* mPas

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- **Additional information:** * The values are for freshly produced material and may change with the time.

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Materials to be avoided:** oxidizing agents
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous decomposition products:**
In case of fire, the following can be released:
carbon oxide (COx)
silicon dioxid (SiO₂)
No hazardous decomposition products if stored and handled as prescribed.

11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values relevant for classification:** Not determined
- **Primary irritant effect:**
- **on the skin:** Frequent persistent contact with the skin may cause skin irritation.
- **on the eye:** In case of longer exposure, slightly irritating effect is possible.
- **during swallowing:** Irritant effect possible
- **Sensitization:** No sensitizing effects known.
- **Other information (about experimental toxicology):**
Experimental analysis are not available.
- **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12 Ecological information

- **Ecotoxicological effects:**
- **Aquatic toxicity:**
May cause long-term adverse effects in the aquatic environment.
Harmful to aquatic organisms.
- **Other information:**
In appropriate sewage treatment plants an extensively elimination off water due to biological degrading, mechanical separation and stripping.
- **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. 76/464 EC:**
According to our current data base the product does not consist of any heavy metals or substances of EU-directives 76/464/EWG.

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- **General notes:**

The product may not be released into the environment without control.
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

13 Disposal considerations

- **Product:**

- **Recommendation** Disposal must be made according to official regulations.

- **European waste catalogue**

08 01 11*	waste paint and varnish containing organic solvents or other dangerous substances
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- **Uncleaned packaging:**

- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 3 Flammable liquids.
- **Danger code (Kemler):** 33
- **UN-Number:** 1993
- **Packaging group:** II
- **Hazard label:** 3
- **Description of goods:** 1993 FLAMMABLE LIQUID, N.O.S. (CONTAINS ETHANOL AND ALKYLTRIETHOXYSILANE), special provision 640D
- **Limited quantities (LQ)** LQ4
- **Transport category** 2
- **Tunnel restriction code** D/E

- **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1993
- **Label** 3
- **Packaging group:** II
- **EMS Number:** F-E,S-E
- **Marine pollutant:** NO

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· **Proper shipping name:** FLAMMABLE LIQUID, N.O.S. (CONTAINS ETHANOL AND ALKYLTRIETHOXYSILANE)

· **Air transport ICAO-TI and IATA-DGR:**



· **ICAO/IATA Class:** 3
 · **UN/ID Number:** 1993
 · **Label:** 3
 · **Packaging group:** II
 · **Proper shipping name:** FLAMMABLE LIQUID, N.O.S. (CONTAINS ETHANOL AND ALKYLTRIETHOXYSILANE)

15 Regulatory information

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Code letter and hazard designation of product:**

F Highly flammable

· **Risk phrases:**

11 Highly flammable.
 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Safety phrases:**

9 Keep container in a well-ventilated place.
 16 Keep away from sources of ignition - No smoking.
 33 Take precautionary measures against static discharges.
 60 This material and its container must be disposed of as hazardous waste.

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 R-phrases**

10 Flammable.
 11 Highly flammable.
 38 Irritating to skin.
 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 62 Possible risk of impaired fertility.
 65 Harmful: may cause lung damage if swallowed.

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67 Vapours may cause drowsiness and dizziness.

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- **Department issuing MSDS:** Product safety department
- **Contact:** Mrs. Popescu

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