



Safety data sheet

according to 1907/2006/EC, Article 31


Printing date 07.06.2011

Revision: 07.06.2011

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

- **Product identifier**
- **Trade name:** KEIM Silan-100
- **CAS Number:**
35435-21-3
- **EC number:**
252-558-1
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation** Hydrophobing agent/ water repellent
- **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
- **Emergency telephone number:**
GBK Gefahrgut Büro GmbH
Emergency number: +49(0)6132/84463

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Flam. Liq. 3 H226 Flammable liquid and vapour.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
R10: Flammable.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**

GHS02
- **Signal word** Warning

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- **Hazard-determining components of labelling:**
Triethoxy(2,4,4-trimethylpentyl)silane
- **Hazard statements**
H226 Flammable liquid and vapour.
- **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P233 Keep container tightly closed.
P370+P378 In case of fire: Use for extinction: CO₂, sand, extinguishing powder.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
35435-21-3 Triethoxy(2,4,4-trimethylpentyl)silane
- **Identification number(s)**
- **EC number:** 252-558-1
- **Description:** Alkoxysilane

4 First aid measures

- **Description of first aid measures**
- **General information:**
When seeing the doctor we suggest to present this safety data sheet.
Immediately remove any clothing soiled by the product.
- **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 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, sand, extinguishing powder. Do not use water.
Alcohol resistant foam
- **For safety reasons unsuitable extinguishing agents:**
Water spray

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- Water with full jet
- **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
carbon oxide (COx)
silicon dioxid (SiO₂)
alcohols
 - **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 breath smoke, fumes and vapours.
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
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.
- **Environmental precautions:**
Follow local governmental rules and regulations.
Do not allow product to reach sewage system or any water course.
- **Methods and material for containment and cleaning up:**
Absorb with non-combustible liquid-binding material (sand, diatomite, vermiculite).
Send for recovery or disposal in suitable receptacles.
Ensure adequate ventilation.
Dispose of the material collected according to regulations.
Clear contaminated areas thoroughly.
- **Reference to other sections** Eliminate all sources of ignition.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Keep receptacles tightly sealed.
Ensure good ventilation/exhaustion at the workplace.
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:**
Fumes can combine with air to form an explosive mixture.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.

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- **Information about storage in one common storage facility:**
 Store away from flammable substances.
 Reacts with: water, basic substances and acids. Reaction causes the formation of: ethanol.
 Do not store together with acids.
 Do not store together with alkalis (caustic solutions).
 Store away from water.
- **Further information about storage conditions:**
 Protect from humidity and water.
 Store receptacle in a well ventilated area.
 Store in cool, dry conditions in well sealed receptacles.
 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.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Immediately remove all soiled and contaminated clothing
 Do not eat, drink, smoke or sniff while working.
 Do not inhale gases / fumes / aerosols.
 Avoid contact with the eyes and skin.
- **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.:
 Nitrile impregnated cotton-gloves
 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.
- **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

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Fluid
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· Colour:	Colourless
· Odour:	Weak, characteristic
· pH-value:	Not applicable
· Change in condition	
Melting point/Melting range:	Not applicable
Boiling point/Boiling range:	236°C
· Flash point:	> 40°C (ISO 2719)
· Ignition temperature:	265°C (DIN 51794)
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	Not determined
Upper:	Not determined
· Vapour pressure at 25°C:	6.0 hPa
· Density at 20°C:	0.88* g/cm ³
· Vapour density	Not applicable
· Evaporation rate	Not applicable
· Solubility in / Miscibility with water at 20°C:	<0.00025 g/l Insoluble.
· Segregation coefficient (n-octanol/water):	6.1 log POW
· Viscosity:	
Dynamic at 25°C:	1.9* mPas
· Other information	Explosion limits for released ethanol: 3,5 - 15% (V). * The values are for freshly produced material and may change with the time.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Incompatible materials:**
water
Bases
Acids
- **Hazardous decomposition products:**
In case of fire, the following can be released:
carbon oxide (COx)
silicon dioxid (SiO₂)
alcohols

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No hazardous decomposition products if stored and handled as prescribed.

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

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

Oral	LD50	> 2000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)

- **Primary irritant effect:**

- **on the skin:**

No irritant effect.

Rabbit

- **on the eye:** not irritating on rabbit eye

- **during swallowing:** Irritant effect possible

- **Sensitization:**

not sensitizing on guinea-pig

(Magnusson-Kligmann)

- **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

- **Toxicity**

- **Acquatic toxicity:** 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. 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.

- **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

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation**

Disposal must be made according to official regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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- **European waste catalogue**
- | | |
|----------|--------------------------------|
| 07 01 99 | wastes not otherwise specified |
|----------|--------------------------------|

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

14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -
- **UN "Model Regulation":** -
- **Special precautions for user** Not applicable.
- **Transport/Additional information:**
No dangerous good in sense of these transport regulations.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

- **Department issuing MSDS:** 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)
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
- *** Data compared to the previous version altered.**