



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

Printing date 31.03.2022

Version number 12.0 (replaces version 11.0)

Revision: 31.03.2022

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

- **1.1 Product identifier**
- **Trade name:** **KEIM ROYALAN-DILUTION**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture** Silicated dilution and primer
- **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.keim.com / 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, modified organically.

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· Dangerous components:

CAS: 1312-76-1 EINECS: 215-199-1 Reg.nr.: 01-2119456888-17-0002	Silicic acid, potassium salt ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 Specific concentration limits: Skin Irrit. 2; H315: C ≥ 40 % Eye Irrit. 2; H319: C ≥ 40 % STOT SE 3; H335: C ≥ 75 %	2.5-10%
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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:**

No special measures required.

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 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

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

No further relevant information available.

· 5.3 Advice for firefighters**· Special protective equipment:** Wear self-contained respiratory protective device.**· Additional information**

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

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**
Respect the protection rules (see section 7 a. 8).
Avoid contact with skin and eyes.
Ensure adequate ventilation
- **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.
Flush rests with sufficient amount of water.
- **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.
See item 8 (8.2) 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.
 - **Information about storage in one common storage facility:** 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**

1312-76-1 Silicic acid, potassium salt

Oral	Long-term - systemic effects	0.74 mg/kg bw/day (consumer)
Dermal	Long-term - systemic effects	0.74 mg/kg bw/day (consumer) 1.49 mg/kg bw/day (worker)
Inhalative	Long-term - systemic effects	1.38 mg/m ³ (consumer) 5.61 mg/m ³ (worker)

· **PNECs**

1312-76-1 Silicic acid, potassium salt

Aquatic compartment - freshwater	7.5 mg/l (freshwater)
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· **Additional information:** The lists valid during the making were used as basis.

· 8.2 Exposure controls

· **Individual protection measures, such as 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:**

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

Filter: P

· **Hand protection** Protective gloves

· **Material of gloves**

suitable material e.g.:

Nitrile impregnated cotton-gloves

Natural rubber, NR

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 ≥ 6 (480 min)

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

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

· **Eye/face protection** Goggles recommended during refilling

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- **Body protection:** Protective work clothing
- **Environmental exposure controls**
See Section 12 and 6.2
No further relevant information available.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

- **Colour:** milky
- **Odour:** Characteristic
- **Odour threshold:** Not determined
- **Melting point/freezing point:** ~ 0 °C
- **Boiling point or initial boiling point and boiling range** >100 °C
- **Flammability** Not applicable
- **Lower and upper explosion limit**
- **Lower:** Not applicable
- **Upper:** Not applicable
- **Flash point:** >100 °C
- **Auto-ignition temperature:** Product is not selfigniting.
- **Decomposition temperature:** Not determined
- **pH at 20 °C** ~11*
- **Viscosity:**
- **Kinematic viscosity** Not determined
- **Dynamic:** Not determined.
- **Solubility**
- **water:** Miscible
- **Partition coefficient n-octanol/water (log value)** Not applicable
- **Vapour pressure at 20 °C:** ~23 hPa
- **Density and/or relative density**
- **Density at 20 °C:** 1.0-1.1* g/cm³
- **Relative density** Not determined
- **Vapour density** Not applicable.

· 9.2 Other information

- * The values are for freshly produced material and may change with the time.
- **Appearance:**
- **Form:** Fluid
- **Important information on protection of health and environment, and on safety.**
- **Ignition temperature:** Not determined
- **Explosive properties:** Product does not present an explosion hazard.

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- **Change in condition**
- **Softening point/range**
- **Oxidising properties:** Not applicable
- **Evaporation rate** Not applicable.

- **Information with regard to physical hazard classes**
- **Explosives** Void
- **Flammable gases** Void
- **Aerosols** Void
- **Oxidising gases** Void
- **Gases under pressure** Void
- **Flammable liquids** Void
- **Flammable solids** Void
- **Self-reactive substances and mixtures** Void
- **Pyrophoric liquids** Void
- **Pyrophoric solids** Void
- **Self-heating substances and mixtures** Void
- **Substances and mixtures, which emit flammable gases in contact with water** Void
- **Oxidising liquids** Void
- **Oxidising solids** Void
- **Organic peroxides** Void
- **Corrosive to metals** Void
- **Desensitised explosives** Void

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:** Acids
- **10.6 Hazardous decomposition products:**
No hazardous decomposition products if stored and handled as prescribed.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:** not determined
- **Skin corrosion/irritation** Frequent persistent contact with the skin may cause skin irritation.

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- **Serious eye damage/irritation**
In case of longer exposure, slightly irritating effect to the eyes 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.
 - **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.
 - **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.
 - **Subacute to chronic toxicity:**
 - **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)** Not applicable
 - **11.2 Information on other hazards**
- | |
|------------------------------------------|
| · Endocrine disrupting properties |
| None of the ingredients is listed. |

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable
- **vPvB:** Not applicable
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **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.
The statements on ecotoxicology have been derived from the properties of the individual components.

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Do not allow product to reach ground water, water course or sewage system.
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

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.
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 or ID 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 Maritime transport in bulk according to IMO instruments

| Not applicable

Transport/Additional information:

| No dangerous good in sense of these transport regulations.

UN "Model Regulation":

| Void

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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 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
- **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**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
- **Department issuing SDS:** KEIMFARBEN Germany, Product safety department
- **Abbreviations and acronyms:**
ADR: Accord relatif au transport international 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
REACH: Registration, Evaluation and Authorisation of Chemicals (Regulation (EC) No.1907/2006)
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- *** Data compared to the previous version altered.**