



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

Printing date 11.11.2016

Version number 11

Revision: 11.11.2016

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

- **1.1 Product identifier**
- **Trade name: KEIM ROYALAN**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture** Silicate exterior paint
- **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**  
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- **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** Void
- **Signal word** Void
- **Hazard statements**  
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**  
P102 Keep out of reach of children.  
P281 Use personal protective equipment as required.  
P273 Avoid release to the environment.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Additional information:**  
Contains propiconazole, 2-octyl-2H-isothiazol-3-one. May produce an allergic reaction.
- **2.3 Other hazards** Alkaline product. Avoid contact with skin and eyes.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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· **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

#### · 3.2 Mixtures

· **Description:** Purely mineral fillers, potassium water glass, pure acrylate emulsion

#### · Dangerous components:

|  |  |         |
|--|--|---------|
| CAS: 57-55-6<br>EINECS: 200-338-0                                  | propane-1,2-diol<br>substance with a Community workplace exposure limit  | ≤ 2.5%  |
| CAS: 60207-90-1<br>EINECS: 262-104-4<br>Index number: 613-205-00-0 | propiconazole<br>⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410;<br>⚠ Acute Tox. 4, H302; Skin Sens. 1, H317   | < 0.5%  |
| CAS: 886-50-0<br>EINECS: 212-950-5                                 | Terbutryn<br>⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410;<br>⚠ Acute Tox. 4, H302   | < 0.5%  |
| CAS: 26530-20-1<br>EINECS: 247-761-7<br>Index number: 613-112-00-5 | 2-octyl-2H-isothiazol-3-one<br>⚠ Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317 | < 0.05% |

· **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:

Seek medical treatment in case of complaints.

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.

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### 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:  
carbon oxide (COx)  
silicon dioxid (SiO<sub>2</sub>)  
acrylic monomers
- **5.3 Advice for firefighters**
- **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.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Respect the protection rules (see section 7 a. 8).  
Ensure adequate ventilation  
Avoid contact with skin and eyes.  
Particular danger of slipping on leaked/spilled product.
- **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.
- **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**  
Avoid contact with skin and eyes.  
Keep receptacles tightly sealed.  
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.

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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.  
Store away from metals.
- **Further information about storage conditions:**  
Please note information on label  
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.

### SECTION 8: Exposure controls/personal protection

#### · 8.1 Control parameters

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

#### **57-55-6 propane-1,2-diol**

|     |  |
|-----|--|
| WEL | Long-term value: 474* 10** mg/m <sup>3</sup> , 150* ppm<br>*total vapour and particulates **particulates |
|-----|--|

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

#### · 8.2 Exposure controls

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Do not inhale aerosols.

· **Respiratory protection:**

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

Combination filter A/P

· **Protection of hands:** Protective gloves

· **Material of gloves**

suitable material e.g.:

Nitrile rubber, NBR

Natural rubber, NR

PVC gloves

Recommended thickness of the material:  $\geq 0.5$  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.

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**· Penetration time of glove material**Value for the permeation: Level  $\geq 6$  (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 through 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

After contact with skin wash thoroughly with water and apply lotion.

**· 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:**

Pasty

**Colour:**

According to product specification

**· Odour:**

Weak, characteristic

**· Odour threshold:**

Not determined.

**· pH-value at 20 °C:**

11.4\*

**· Change in condition****Melting point/Melting range:**

Undetermined.

**Boiling point/Boiling range:**

Undetermined.

**· Flash point:**

Not applicable.

**· Flammability (solid, gaseous):**

Not applicable.

**· Ignition temperature:**

Not determined.

**· Decomposition 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:**

Not determined.

**· Density at 20 °C:**1.35\* g/cm<sup>3</sup>**· Relative density**

Not determined.

**· Vapour density**

Not applicable.

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|   |  |
|---|--|
| · <b>Evaporation rate</b>                         | Not applicable.  |
| · <b>Solubility in / Miscibility with water:</b>  | miscible   |
| · <b>Partition coefficient (n-octanol/water):</b> | Not applicable.  |
| · <b>Viscosity:</b>                               |  |
| <b>Dynamic at 20 °C:</b>                          | 900-1200* mPas   |
| <b>Kinematic:</b>                                 | Not determined.  |
| · <b>9.2 Other information</b>                    | * 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:**  
Acids  
Metals
- **10.6 Hazardous decomposition products:**  
In case of fire, the following can be released:  
carbon oxide (COx)  
silicon dioxid (SiO<sub>2</sub>)  
acrylic monomers  
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:****57-55-6 propane-1,2-diol**

|        |      |                      |
|--------|------|----------------------|
| Oral   | LD50 | 2000 mg/kg (rat)     |
| Dermal | LD50 | 20800 mg/kg (rabbit) |

**60207-90-1 propiconazole**

|            |          |                    |
|------------|----------|--------------------|
| Oral       | LD50     | 1517 mg/kg (rat)   |
| Dermal     | LD50     | > 4000 mg/kg (rat) |
| Inhalative | LC50/4 h | 1264 mg/l (rat)    |
|            | NOAEL    | 2.7 mg/kg (mouse)  |

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|   |          |                       |
|---|----------|-----------------------|
|   |          | 100 mg/kg (rat)       |
| <b>886-50-0 Terbutryn</b>                     |          |                       |
| Oral  | LD50     | 2045 mg/kg (rat)      |
| Dermal  | LD50     | > 2000 mg/kg (rabbit) |
| Inhalative                                    | LC50/4 h | > 8000 mg/l (rat)     |
| <b>26530-20-1 2-octyl-2H-isothiazol-3-one</b> |          |                       |
| Oral  | LD50     | 550 mg/kg (rat)       |
| Dermal  | LD50     | > 2000 mg/kg (rabbit) |
| Inhalative                                    | LC50/4 h | 0.76 mg/l (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, irritating effect is possible.
- **during inhalation:** Irritant effect possible.
- **during swallowing:** Irritant effect possible
- **Respiratory or skin sensitisation**  
Contains propiconazole, 2-octyl-2H-isothiazol-3-one. May produce an allergic reaction.
- **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:**  
Harmful to aquatic organisms.  
May cause long-term adverse effects in the aquatic environment.

|                                 |                     |
|---------------------------------|---------------------|
| <b>60207-90-1 propiconazole</b> |                     |
| EC 50/48h                       | 10.2 mg/l (daphnia) |
| EC 50/72 h                      | 0.76 mg/l (algae)   |
| LC 50/96 h                      | 4.3 mg/l (fish)     |
| <b>886-50-0 Terbutryn</b>       |                     |
| NOEC                            | 0.84 mg/l (fish)    |
|                                 | 1.3 mg/l (daphnia)  |
| EC 50/48h                       | 2.66 mg/l (daphnia) |

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|   |                               |
|---|-------------------------------|
| EC 50/3h                                      | > 1000 mg/l (Mikroorganismus) |
| <b>26530-20-1 2-octyl-2H-isothiazol-3-one</b> |                               |
| EC 50/48h                                     | 0.32 mg/l (daphnia)           |
| LC 50/96 h                                    | 0.047-0.18 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:**  
The product can take influence in small measure 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:**  
The product contains TiO<sub>2</sub>.
- **General notes:**  
At present there are no ecotoxicological assessments.  
Do not allow product to reach ground water, water course or sewage system.  
Harmful to aquatic organisms  
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**  
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**

|           |   |
|-----------|---|
| 08 01 11* | waste paint and varnish containing organic solvents or other hazardous substances |
|-----------|---|

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

### SECTION 14: Transport information

- |                                       |      |
|---------------------------------------|------|
| · <b>14.1 UN-Number</b>               |      |
| · <b>ADR, IMDG, IATA</b>              | Void |
| · <b>14.2 UN proper shipping name</b> |      |
| · <b>ADR, IMDG, IATA</b>              | Void |

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

### 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**
- **Please note:**  
TRGS 200 (Germany)  
TRGS 500 (Germany)  
TRGS 510 (Germany)  
TRGS 900 (Germany)
- **Substances of very high concern (SVHC) according to REACH, Article 57** not applicable
- **Product-Code/Giscode:** M-SK01
- **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.

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· **Relevant phrases**

- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H331 Toxic if inhaled.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

· **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)
- 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)
- Acute Tox. 4: Acute toxicity – Category 4
- Acute Tox. 3: Acute toxicity – Category 3
- Skin Corr. 1B: Skin corrosion/irritation – Category 1B
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- Skin Sens. 1: Skin sensitisation – Category 1
- Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
- Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
- Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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