



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

Printing date 29.08.2017

Version number 15

Revision: 29.08.2017

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

- **1.1 Product identifier**
- **Trade name: KEIM LIGNOSIL-COLOR**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture** Silicate-based wood-paint for exterior use.
- **Uses advised against** All other uses are not recommended.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
KEIMFARBEN GMBH
Keimstraße 16 / 86420 Diedorf
Tel. +49 (0)821 4802-0
Fax +49 (0)821 4802-210
www.keim.com / info@keimfarben.de
- **Further information obtainable from:**
Product safety department
Telefon: 49(0)821/4802-138
E-Mail: sdb.info@keimfarben.de
- **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.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
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, 2-methyl-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:**

Exterior paint on silicate base with light-resistant, inorganic pigments and mineral fillers.

· **Dangerous components:**

CAS: 1314-98-3 EINECS: 215-251-3 Reg.nr.: 01-2119475779-15-xxxx	zinc sulphide substance with a Community workplace exposure limit	2.5-10%
CAS: 60207-90-1 EINECS: 262-104-4 Index number: 613-205-00-0	propiconazole ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	< 0.5%
CAS: 886-50-0 EINECS: 212-950-5	Terbutryn ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302	< 0.5%
CAS: 26530-20-1 EINECS: 247-761-7 Index number: 613-112-00-5	2-octyl-2H-isothiazol-3-one ⚠ 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%
CAS: 2682-20-4 EINECS: 220-239-6	2-methyl-2H-isothiazol-3-one ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; ⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠ Skin Sens. 1, H317; STOT SE 3, H335	< 0.01%
CAS: 57-55-6 EINECS: 200-338-0	propane-1,2-diol	<1%

· **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:**

With appearance of symptoms or in cases of doubt seek medical advice .

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.

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- **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:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**
Harmful and flammable vapour is released during pyrolysis.
In case of fire, the following can be released:
carbon oxide (CO_x)
acrylic monomers
Hydrogen fluoride (HF)
- **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).
Avoid contact with skin and eyes.
Particular danger of slipping on leaked/spilled product.
- **6.2 Environmental precautions:**
Prevent seepage into sewage system, workpits and cellars.
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).
Close drainage (Risk of blocking due to polymer precipitation)
Dispose of the material collected according to regulations.
Flush rests with sufficient amount of water.
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.

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See Section 13 for disposal information.

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SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

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:

Keep in the original containers in a cool and dry place.

Store only in unopened original receptacles.

Unsuitable material for receptacles and pipes:

iron and ferrous metals

Suitable material for receptacles and pipes:

Polyethylene

· 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

· General information: Stir up well before use.

· 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:

1314-98-3 zinc sulphide

MAK (Germany)	Long-term value: 0.1A* 2E** mg/m ³ *alveolengängig; **einatembar
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26530-20-1 2-octyl-2H-isothiazol-3-one (<0.05%)

AGW (Germany)	Long-term value: 0.05 E mg/m ³ 2(I);DFG, H, Y
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2682-20-4 2-methyl-2H-isothiazol-3-one (<0.01%)

MAK (Germany)	vgl. Abschn. IIb und Xc
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· DNELs**1314-98-3 zinc sulphide**

Inhalative Acute - local effects, worker 5 (worker) (insoluble Zn)

· PNECs**1314-98-3 zinc sulphide**

Aquatic compartment - freshwater	0.0206 mg/l (freshwater) (PNEC acid)
Aquatic compartment - marine water	0.0061 mg/l (marine water) (PNEC acid)
Aquatic compartment - sediment in freshwater	235.6 mg/kg sed dw (sediment fresh water) (Faktor 0,5; EZB 2008)
Aquatic compartment - sediment in marine water	113 mg/kg sed dw (sediment marine water) (Faktor 0,5; EZB 2008)
Terrestrial compartment - soil	106.8 mg/kg dw (soil) (Faktor 3; EZB 2008)
Sewage treatment plant	0.052 mg/l (sewage treatment plant)

· 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:

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 impregnated cotton-gloves

Nitrile rubber, NBR

Butyl rubber, BR

PVC or PE gloves

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 materialValue 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

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- **Body protection:** Protective work clothing
- **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:** Different, according to colouring.

· **Odour:** Weak, characteristic

· **Odour threshold:** Not determined.

· **pH-value at 20°C:** ~11*

· Change in condition

· **Melting point/freezing point:** Undetermined.

· **Initial boiling point and boiling range:** Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:** Not determined.

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

· Explosion limits:

· **Lower:** Not applicable.

· **Upper:** Not determined.

· **Oxidising properties:** Not applicable.

· **Vapour pressure at 20°C:** ~23 hPa

· **Density at 20°C:** 1.4-1.6* g/cm³

· **Relative density:** Not determined.

· **Vapour density:** Not applicable.

· **Evaporation rate:** Not applicable.

· **Solubility in / Miscibility with water:** miscible

· **Partition coefficient: n-octanol/water:** Not applicable.

· Viscosity:

· **Dynamic at 20°C:** 800-1100* mPas

· **Kinematic:** Not determined.

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· 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:**
Acids
Metals
- **10.6 Hazardous decomposition products:**
At high temperature formation of flammable and harmful products.
In case of fire, the following can be released:
carbon oxide (COx)
acrylic monomers
Hydrogen fluoride
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:**1314-98-3 zinc sulphide**

Oral	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	>5.7 mg/l (rat)

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

Oral	LD50	2,000 mg/kg (rat)
Dermal	LD50	20,800 mg/kg (rabbit)

60207-90-1 propiconazole

Oral	LD50	1,517 mg/kg (rat)
Dermal	LD50	>4,000 mg/kg (rat)
Inhalative	LC50/4 h	1,264 mg/l (rat)
	NOAEL	2.7 mg/kg (mouse)
		100 mg/kg (rat)

886-50-0 Terbutryn

Oral	LD50	2,045 mg/kg (rat)
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Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	>8,000 mg/l (rat)
26530-20-1 2-octyl-2H-isothiazol-3-one		
Oral	LD50	550 mg/kg (rat)
Dermal	LD50	>2,000 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, slightly irritating effect is possible.
- **during inhalation:** Irritant effect possible.
- **during swallowing:** Irritant effect possible
- **Respiratory or skin sensitisation**
Contains Propiconazol, OIT, MIT. May produce an allergic reaction.
OIT = 2-Octyl-2H-isothiazol-3-one
MIT = 2-methyl-2H-isothiazol-3-one
- **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.

1314-98-3 zinc sulphide

EC 50/48h	204 mg/l (daphnia) (pH <7)
EC 50/72 h	144 mg/l (algae) (pH >7 - 8,5)

60207-90-1 propiconazole

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)

886-50-0 Terbutryn

NOEC	0.84 mg/l (fish)
	1.3 mg/l (daphnia)

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EC 50/48h	2.66 mg/l (daphnia)
EC 50/3h	>1,000 mg/l (Mikroorganismus)
26530-20-1 2-octyl-2H-isothiazol-3-one	
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.
- **Other information:**
Elimination in biological waste water treatment plants is effected by flocculation, precipitation and adsorption on sewage sludge.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Other information:** Pretreat waste water with help of precipitation.
- **Additional ecological information:**
- **AOX-indication:**
Due to the substance of content which do include organic jointed halogens, the product can 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:**
The product contains TiO₂.
- **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**
Disposal must be made according to official regulations.
Must not be disposed with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**

08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary with cleansing agents.

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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
- 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: BSW50

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· **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**

- H301 Toxic if swallowed.
- 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.
- H335 May cause respiratory irritation.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 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)
- 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
- AGW: Arbeitsplatzgrenzwert (Germany)
- 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
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- 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 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
- Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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