



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

Printing date 14.02.2017



Version number 12

Revision: 14.02.2017

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

- **1.1 Product identifier**
- **Trade name: KEIM AQUAROYAL-ARMIERUNGSMÖRTEL**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture** Mineral adhesive and reinforcement mortar.
- **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**
Skin Irrit. 2 H315 Causes skin irritation.
Eye Dam. 1 H318 Causes serious eye damage.
STOT SE 3 H335 May cause respiratory irritation.
- **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**

GHS05 GHS07
- **Signal word** Danger
- **Hazard-determining components of labelling:**
Cement, portland, chemicals
calcium dihydroxide
- **Hazard statements**
H315 Causes skin irritation.
H318 Causes serious eye damage.

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H335 May cause respiratory irritation.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P271 Use only outdoors or in a well-ventilated area.

P261 Avoid breathing dust.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P315 Get immediate medical advice/attention.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P362 Take off contaminated clothing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

2.3 Other hazards

This Product contains cement. Cement produces an alkaline reaction with moisture or water. Avoid contact with eyes and prolonged skin contact.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients**3.2 Mixtures**

Description: Portland-cement, calcium dihydroxide, aggregates and additives

Dangerous components:

CAS: 65997-15-1 EINECS: 266-043-4	Cement, portland, chemicals ☠ Eye Dam. 1, H318; ☠ Skin Irrit. 2, H315; STOT SE 3, H335	10-25%
CAS: 1305-62-0 EINECS: 215-137-3 Reg.nr.: 01-2119475151-45-XXXX	calcium dihydroxide ☠ Eye Dam. 1, H318; ☠ Skin Irrit. 2, H315; STOT SE 3, H335	2.5-10%

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: 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 mouth and throat well with water.

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- 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**
- **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**
Avoid contact with skin and eyes.
Avoid formation of dust.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Respect the protection rules (see section 7 a. 8).
Product forms slippery surface when combined with water.
- **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:**
Close drainages (Risk of blocking)
Danger of slipping!
Avoid formation of dust.
Ensure adequate ventilation.
Pick up mechanically.
Dispose of the material collected according to regulations.
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.
See Section 13 for disposal information.

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SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Avoid contact with skin and eyes.

Keep receptacles tightly sealed.

Prevent formation of dust.

Ensure good ventilation/exhaustion at the workplace.

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.

· **Information about storage in one common storage facility:** Do not store together with acids.

· **Further information about storage conditions:**

Store in dry conditions.

Protect from humidity and water.

Avoid dust formations and deposits.

Keep container tightly sealed.

Protect from heat and direct sunlight.

· **Storage class:** 13

· **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:**

65997-15-1 Cement, portland, chemicals

AGW (Germany)	Long-term value: 5 E mg/m ³ DFG
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1305-62-0 calcium dihydroxide

AGW (Germany)	Long-term value: 1E mg/m ³ 2(I);Y, EU, DFG
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· **DNELs**

1305-62-0 calcium dihydroxide

Inhalative	Acute - local effects, worker	4 mg/m ³ (worker)
	Acute - local effects, consumer	4 mg/m ³ (consumer)
	Long-term - local effects, worker	1 mg/m ³ (worker)
	Long-term - local effects, consumer	1 (consumer)

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· PNECs**1305-62-0 calcium dihydroxide**

Aquatic compartment - freshwater	0.49 mg/l (freshwater)
Aquatic compartment - marine water	0.32 mg/l (marine water)
Terrestrial compartment - soil	1080 mg/kg dw (soil)
Sewage treatment plant	3 mg/l (sewage sludge)

· Additional information: The lists valid during the making were used as basis.**· 8.2 Exposure controls****· Personal protective equipment:****· General protective and hygienic measures:**

Vacuum clean contaminated clothing. Do not blow or brush off contamination.

Avoid contact with the eyes and skin.

Do not inhale dust / smoke / mist.

Wash hands before breaks and at the end of work.

Immediately remove all soiled and contaminated clothing

· Respiratory protection:

In a dusty environment wear suitable facemask.

Filter: FFP2

· Protection of hands:

Protective gloves

Alkaline resistant gloves

· Material of gloves

suitable material e.g.:

Nitrile impregnated cotton-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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:

In a dusty environment wear protective goggles.

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

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

· Form:	Powder
· Colour:	nature white
· Odour:	Odourless
· Odour threshold:	Not determined.

· pH-value at 20 °C: 11.5-13.5*

· Change in condition

· Melting point/freezing point:	Undetermined.
· Initial boiling point and boiling range:	Undetermined. Not applicable

· 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 applicable.

· Oxidising properties: Not applicable

· Vapour pressure: Not applicable

· Density at 20 °C: 1.00-1.20* g/cm³

· Relative density: Not determined.

· Vapour density: Not applicable

· Evaporation rate: Not applicable

· Solubility in / Miscibility with water at 20 °C: < 2 g/l (Ca(OH)₂)
miscible

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

· Viscosity:

· Dynamic:	Not applicable.
· Kinematic:	Not applicable.

· 9.2 Other information

* The values are for freshly produced material and may change with the time.

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SECTION 10: Stability and reactivity

- **10.1 Reactivity** Reacts with water alkaline and hardens.
- **10.2 Chemical stability** Stable under normal conditions of storage and use.
- **Thermal decomposition / conditions to be avoided:**
Stable at environment temperature.
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** Humidity
- **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 toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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

1305-62-0 calcium dihydroxide

Oral	LD50	>2000 mg/kg (rat) (OECD 425)
Dermal	LD50	> 2500 mg/kg (rabbit) (OECD 402)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **during inhalation:** Irritating to respiratory system.
- **during swallowing:** Irritant effect possible
- **Respiratory or skin sensitisation**
Product is reduced in chromate. Within the indicated storage time sensitization is not expected.
- **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**
May cause respiratory irritation.
- **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.

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SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

1305-62-0 calcium dihydroxide

NOEC	72h; 48 mg/l (freshwater alga)
	14d; 32 mg/l (invertebrate marine organisms)
EC10/LC10 oder NOEC	2000 mg/kg (Soil macro-organisms)
	12000 mg/kg (soil microorganisms)
NOEC	21d; 1080 mg/kg (plants)
EC 50/48h	49.1 mg/l (freshwater invertebrate organisms)
EC 50/72 h	184.57 mg/l (freshwater alga)
LC 50/96 h	457 mg/l (marine fish)
	50.6 mg/l (freshwater fish)
	158 mg/l (invertebrate marine organisms)

· **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:

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.

· General notes:

At present there are no ecotoxicological assessments.

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

· 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

17 01 01	concrete
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· Uncleaned packaging:

· Recommendation:

Non contaminated packagings may be recycled.

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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 · 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 1 (Self-assessment): slightly hazardous for water.
- **Other regulations, limitations and prohibitive regulations**
- **Please note:**
 - TRGS 200 (Germany)
 - TRGS 500 (Germany)
 - TRGS 510 (Germany)
 - TRGS 900 (Germany)

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- **Substances of very high concern (SVHC) according to REACH, Article 57** not applicable
- **Product-Code/Giscode:** ZP1
- **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.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.

· **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)
- 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)
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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