



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

Printing date 16.04.2021

Version number 13.1

Revision: 16.04.2021

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

- **1.1 Product identifier**
- **Trade name: KEIM PURKRISTALAT PAINT-POWDER
(PURKRISTALAT-FARBPULVER)**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture** Paint-powder for two component silicate 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.
P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable
- **vPvB:** Not applicable

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SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· **Description:** Paint powder based on silicatic and calcitic fillers as well as inorganic paint pigments

· **Dangerous components:**

CAS: 7727-43-7 EINECS: 231-784-4 Reg.nr.: 01-2119491274-35	barium sulphate, natural substance with a Community workplace exposure limit	≥10-≤25%
CAS: 1314-13-2 EINECS: 215-222-5 Index number: 030-013-00-7 Reg.nr.: 01-2119463881-32-0043	zinc oxide  Aquatic Acute 1, H400; Aquatic Chronic 1, H410	≥0.25-<2.5%

· **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:**

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.

· 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

· **Specila protective equipment:** Wear self-contained respiratory protective device.

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· **Additional information**

In case of fire do not breathe smoke, fumes and vapours.

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

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Avoid formation of dust.

Avoid contact with skin and eyes.

Do not inhale dust.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Respect the protection rules (see section 7 a. 8).

· **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:**

Pick up mechanically.

Avoid formation of dust.

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.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Keep receptacles tightly sealed.

Prevent formation of dust.

Do not inhale dust.

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:**

Store only in the original receptacle.

Suitable material for receptacles:

Paper

Polyethylene

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- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Avoid dust formations and deposits.
Protect from humidity and water.
Store in cool, dry conditions in well sealed receptacles.
Protect from frost.
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:**
General Threshold Limit Value for Dust:
total dust (inhalable fraction) MAK 4 mg/m³

7727-43-7 barium sulphate, natural

WEL	Long-term value: 10* 4** mg/m ³ *inhalable dust **respirable dust
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· DNELs

7727-43-7 barium sulphate, natural

Oral	Long-term - systemic effects	13,000 mg/kg bw/day (consumer)
Inhalative	Long-term - systemic effects	10 mg/m ³ (worker)
	Long-term - systemic effects	10 mg/m ³ (consumer)
	Long-term - local effects	10 mg/m ³ (worker)

1314-13-2 zinc oxide

Oral	Long-term - systemic effects	0.83 mg/kg bw/day (consumer) (50 mg Zn/day)
Dermal	Long-term - systemic effects	83 mg/kg bw/day (worker)
	Long-term - systemic effects	83 mg/kg bw/day (consumer) (5000 mg Zn/day)
Inhalative	Long-term - systemic effects	5 mg/m ³ (worker)
	Long-term - systemic effects	2.5 mg/m ³ (consumer)
	Long-term - local effects	0.5 mg/m ³ (worker)

· PNECs

7727-43-7 barium sulphate, natural

Aquatic compartment - freshwater	0.115 mg/l (freshwater)
Aquatic compartment - sediment in freshwater	600.4 mg/kg sed dw (sediment fresh water)
Terrestrial compartment - soil	207.7 mg/kg dw (soil)
Sewage treatment plant	62.2 mg/l (sewage treatment plant) (Ba)

1314-13-2 zinc oxide

Aquatic compartment - freshwater	0.0206 mg/l (freshwater)
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Aquatic compartment - marine water	0.0061 mg/l (marine water)
Aquatic compartment - sediment in freshwater	117.8 mg/kg sed dw (sediment fresh water)
Aquatic compartment - sediment in marine water	56.5 mg/kg sed dw (sediment marine water)
Terrestrial compartment - soil	35.6 mg/kg dw (soil)
Sewage treatment plant	0.1 mg/l (sewage treatment plant)

- **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 dust / smoke / mist.
 - Wash hands before breaks and at the end of work.
- **Respiratory protection:**
 - Use suitable respiratory protective device in case of insufficient ventilation.
 - Filter: P2
- **Hand protection** Protective gloves
- **Material of gloves**
 - suitable material e.g.:
 - Nitrile impregnated cotton-gloves
 - 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 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**
 - In a dusty environment wear protective goggles.
 - Tightly sealed goggles
- **Body protection:** Protective work clothing
- **Environmental exposure controls**
 - See Section 12 and 6.2
 - No further relevant information available.

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Colour:	Different, according to colouring.
· Odour:	Odourless
· Melting point/freezing point:	>1,300 °C
· Boiling point or initial boiling point and boiling range	Not applicable.
· Flammability	Product is not flammable.
· Lower and upper explosion limit	
· Lower:	Not applicable
· Upper:	Not applicable
· Flash point:	Not applicable
· Auto-ignition temperature:	Product is not selfigniting.
· Decomposition temperature:	Not determined
· pH	Not applicable
· Viscosity:	
· Kinematic viscosity	Not applicable
· Dynamic:	Not applicable
· Solubility	
· water:	Insoluble
· Partition coefficient n-octanol/water (log value)	Not applicable
· Vapour pressure:	Not applicable.
· Density and/or relative density	
· Density at 20 °C:	0.6-0.8* g/cm ³ Compacted density
· Vapour density	Not applicable.

· 9.2 Other information

· Appearance:	
· Form:	Powder
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Not determined
· Explosive properties:	Product does not present an explosion hazard.
· 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

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· 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** Humidity
- **10.5 Incompatible materials:** No further relevant information available.
- **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:**

7727-43-7 barium sulphate, natural

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
	NOAEL	>104 mg/kg (rat)

1314-13-2 zinc oxide

Oral	LD50	>5,000 mg/kg (rat)
Inhalative	LC50/4 h	>5.7 mg/l (rat)

- **Skin corrosion/irritation** Frequent persistent contact with the skin may cause skin irritation.

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- **Serious eye damage/irritation** Product powder can cause temporary mechanical eye irritation.
- **during inhalation:**
By excess of "General Threshold Limit Value for Dust" is - comparable to inert dust - a mechanical overload of respiratory tracts 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 (carcinogenicity, 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:**
May cause long-term adverse effects in the aquatic environment.
Harmful to aquatic organisms.

7727-43-7 barium sulphate, natural

NOEC	>1.15 mg/l /72h (algae)
	622 mg/l /3h (activated sludge)
	>1.26 mg/l /33d (fish)
	2.9 mg/l /21d (daphnia)
NOEC	211 mg/kg /28d (soil microorganisms)
EC 50/48h	14.5 mg/l (daphnia)
ErC50/72h	>1.15 mg/l (algae)
LC 50/96 h	>3.5 mg/l (fish)

1314-13-2 zinc oxide

EC 50/48h	0.67 mg/l (daphnia)
ErC50/72h	0.21 mg/l (algae) (pH >7 - 8,5; Zn (ZnO))

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.

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- **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:**
The product contains ZnS, BaSO₄, ZnO.
- **General notes:**
The product may not be released into the environment without control.
The product does only consist of inorganic substances; the definition of ecological data like biological degradability, COD and BOD is not expedient.
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**
Disposal must be made according to official regulations.
Must not be disposed with household garbage. Do not allow product to reach sewage system.
- **Waste disposal key:**
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

- | | |
|---------------------------------------|------|
| · 14.1 UN number or ID number | |
| · ADR, IMDG, IATA | Void |
| · 14.2 UN proper shipping name | |
| · ADR, IMDG, IATA | Void |

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· 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

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)
- **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.

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· **Relevant phrases**

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 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

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)

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.**