



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

Printing date 18.11.2021

Version number 12.0 (replaces version 11.1)

Revision: 18.11.2021

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

- **1.1 Product identifier**
- **Trade name: KEIM COLOUR CONCENTRATES  
(FARBKONZENTRATE)**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture**  
silicate-based tinting concentrate  
weatherproof artist color
- **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
- **Additional information:**  
EUH210 Safety data sheet available on request.  
EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
- **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:

Aqueous solution of silicic acid potassium salt, pure acrylate, organically modified, fillers, pigments

##### Dangerous components:

CAS: 13463-67-7

EINECS: 236-675-5

Index number: 022-006-00-2

Reg.nr.: 01-2119486799-10-XXXX

titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter  $\leq 10 \mu\text{m}$ ]

Carc. 2, H351

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:

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 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

Harmful and flammable vapour is released during pyrolysis.

In case of fire, the following can be released:

carbon oxide (COx)

acrylic monomers

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- Hydrogen fluoride (HF)
- **5.3 Advice for firefighters**
- **Specila 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.  
Ensure adequate ventilation  
Particular danger of slipping on leaked/spilled product.  
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:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.  
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.  
Do not inhale aerosols.  
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.  
Unsuitable material for receptacles and pipes:

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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

· **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:**

**13463-67-7 titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter  $\leq 10 \mu\text{m}$ ]**

WEL	Long-term value: $10^* 4^{**} \text{ mg/m}^3$ *total inhalable **respirable
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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.

Combination filter A/P

· **Hand protection** Protective gloves

· **Material of gloves**

suitable material e.g.:

Nitrile impregnated cotton-gloves

Neoprene gloves

Rubber gloves

PVC or PE gloves

Recommended thickness of the material:  $\geq 0.5 \text{ mm}$

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 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

Tightly sealed goggles

**· 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:**

Different, according to colouring.

**· Odour:**

Characteristic

**· Odour threshold:**

Not determined

**· Melting point/freezing point:**

Not determined

**· Boiling point or initial boiling point and boiling range**

Not determined

**· Flammability**

Not applicable

**· 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 at 20 °C**

11.2\*

**· Viscosity:****· Kinematic viscosity**

Not determined

**· Dynamic at 20 °C:**

900-1800\* mPas

**· 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:**1.35-1.55\* g/cm<sup>3</sup>**· Relative density**

Not determined

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· Vapour density	Not applicable
· 9.2 Other information	* The values are for freshly produced material and may change with the time.
· Appearance:	
· Form:	Pasty
· 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	
· 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:**  
In case of fire, the following can be released:

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Carbon oxides (CO<sub>x</sub>)  
acrylic monomers  
Hydrogen fluoride  
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:**

**13463-67-7 titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]**

Inhalative	ATE mix (4h)	>5 mg/l (inhalative)
	ATE mix	>2,000 mg/kg (dermal) >2,000 mg/kg (orally)
	NOAEL	3,500 mg/kg /Oral (rat) (90d)

- **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** 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:**

- **Repeated dose toxicity**

**13463-67-7 titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]**

Inhalative	NOAEC	10 mg/m <sup>3</sup> (rat) (90d)
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- **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.

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### SECTION 12: Ecological information

#### · 12.1 Toxicity

##### · Aquatic toxicity:

**13463-67-7 titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter  $\leq 10 \mu\text{m}$ ]**

NOEC	$\geq 100,000$ mg/kg (sediment fresh water)
EC50	$> 100$ mg/kg (Freshwater algae) (OECD 201)
EC 50	$> 10,000$ mg/l (algae) (ISO 10253)
LC 50	$> 10,000$ mg/l (marine fish) (OECD 203)
	$> 1,000$ mg/l (freshwater fish) (EPA-540/9-85-006)
	$> 1,000$ mg/l (daphnia) (OECD 202)

· **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.

##### · 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

· **Other information:** Pretreat waste water with help of precipitation.

##### · 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  $\text{TiO}_2$ .

##### · General notes:

The statements on ecotoxicology have been derived from the properties of the individual components.

Do not allow product to reach ground water, water course or sewage system.

At present there are no ecotoxicological assessments.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

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### 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 12	waste paint and varnish other than those mentioned in 08 01 11
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· **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**
- **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.

- **Relevant phrases**  
H351 Suspected of causing cancer.
- **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)  
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)  
Carc. 2: Carcinogenicity – Category 2
- **\* Data compared to the previous version altered.**