



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

Printing date 03.05.2021

Version number 13.0

Revision: 03.05.2021

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

- **1.1 Product identifier**
- **Trade name:**  
**KEIM MYCAL-TOP**  
Nanoform
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture**  
Highly specialized silicate-based interior paint, applicable within the Mycal product system
- **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**  
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** Alkaline product. Avoid contact with skin and eyes.
- **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:** Purely mineral fillers, potassium water glass, pure acrylate emulsion

**Dangerous components:**

CAS: 1312-76-1 EINECS: 215-199-1 Reg.nr.: 01-2119456888-17-xxxx	Silicic acid, potassium salt ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 Specific concentration limits: Skin Irrit. 2; H315: C ≥ 40 % Eye Irrit. 2; H319: C ≥ 40 % STOT SE 3; H335: C ≥ 40 %	≥2.5-≤10%
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 ≤ 10 µm] ⚠ Carc. 2, H351	2.5-10%
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: 13463-67-7 EINECS: 236-675-5 Index number: 022-006-00-2 Reg.nr.: 01-2119489379-17-xxxx	titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] ⚠ Carc. 2, H351 Nanoform: crystalline forms	≥0.1-≤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:**

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.

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- **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**  
In case of fire, the following can be released:  
carbon oxide (COx)
- **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**  
Respect the protection rules (see section 7 a. 8).  
Avoid contact with skin and eyes.  
Ensure adequate ventilation  
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.
- **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.
- **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.  
Ensure good ventilation/exhaustion at the workplace.  
Do not inhale aerosols.

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

· **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 ≤ 10 µm]**

AGW (Germany)	Long-term value: 1.25* 10** mg/m <sup>3</sup> 2(II);*alveolengängig**eintembar; AGS, DFG
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**1314-98-3 zinc sulphide**

MAK (Germany)	Long-term value: 0.1A* 2E** mg/m <sup>3</sup> *alveolengängig; **eintembar
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· **DNELs**

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

Inhalative	Long-term - local effects	10 mg/m <sup>3</sup> (not specified)
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· **PNECs**

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

Aquatic compartment - freshwater	0.127 mg/l (freshwater)
Aquatic compartment - marine water	>1 mg/l (marine water)
Aquatic compartment - sediment in freshwater	>1,000 mg/kg sed dw (sediment fresh water)
Aquatic compartment - sediment in marine water	>100 mg/kg sed dw (sediment marine water)
Terrestrial compartment - soil	>100 mg/kg dw (soil)
Sewage treatment plant	100 mg/l (sewage treatment plant)

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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.
  - Filter: P
- **Hand protection** Protective gloves
- **Material of gloves**
  - suitable material e.g.:
  - Nitrile impregnated cotton-gloves
  - Butyl rubber, BR
  - Recommended thickness of the material:  $\geq 0.5$  mm
  - PVC or PE 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.
- **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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye/face protection** 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

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· <b>Flammability</b>	Not applicable
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	Not applicable
· <b>Upper:</b>	Not applicable
· <b>Flash point:</b>	Not applicable
· <b>Auto-ignition temperature:</b>	Product is not selfigniting.
· <b>Decomposition temperature:</b>	Not determined
· <b>pH at 20 °C</b>	~11
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not determined
· <b>Dynamic at 20 °C:</b>	1.600-2.100* mPas
· <b>Solubility</b>	
· <b>water:</b>	Miscible
· <b>Partition coefficient n-octanol/water (log value)</b>	Not applicable
· <b>Vapour pressure at 20 °C:</b>	~23 hPa
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1.5-1.7* g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined
· <b>Vapour density</b>	Not applicable
· <b>9.2 Other information</b>	* The values are for freshly produced material and may change with the time.
· <b>Appearance:</b>	
· <b>Form:</b>	Pasty
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Ignition temperature:</b>	Not determined
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Change in condition</b>	
· <b>Softening point/range</b>	
· <b>Oxidising properties:</b>	Not applicable
· <b>Evaporation rate</b>	Not applicable
· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Void
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void

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· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void
· <b>Other safety characteristics</b>	
· <b>Photocatalytic properties</b>	The product has photocatalytic properties.

### 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:  
Carbon oxides (CO<sub>x</sub>)  
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 (inhalation)
	ATE mix	>2,000 mg/kg (dermal) >2,000 mg/kg (orally)
	NOAEL	3,500 mg/kg /Oral (rat) (90d)

**1314-98-3 zinc sulphide**

Oral	LD50	>15,000 mg/kg (rat) (OECD 401)
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**13463-67-7 titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]**

Oral	LD50	>5,000 mg/kg (rat)
Inhalative	LC50/4 h	>6.82 mg/l (rat)

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- **Skin corrosion/irritation** Frequent persistent contact with the skin may cause skin irritation.
- **Serious eye damage/irritation** slightly irritant
- **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  $\leq 10 \mu\text{m}$ ]**Inhalative | NOAEC | 10 mg/m<sup>3</sup> (rat) (90d)

- **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:****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 alga) (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)

**1314-98-3 zinc sulphide**

EC 50/48h (static)	100 mg/l (daphnia) (OECD 202)
EC 50/96h (static)	100 mg/l (fish) (OECD 203)
EC 50/72 h (static)	100 mg/l (algae) (OECD 202)

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

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- **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** 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.
- **According to the formulation contains the following heavy metals and compounds from the EU guideline NO. 2006/11/EC:**  
The product contains BaSO<sub>4</sub>, TiO<sub>2</sub>, ZnS.
- **General notes:**  
Do not allow product to reach ground water, water course or sewage system.  
At present there are no ecotoxicological assessments.  
The statements on ecotoxicology have been derived from the properties of the individual components.  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

### 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

- |                                       |      |
|---------------------------------------|------|
| · <b>14.1 UN number or ID number</b>  | Void |
| · <b>ADR, IMDG, IATA</b>              | Void |
| · <b>14.2 UN proper shipping name</b> | Void |
| · <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 Maritime transport in bulk according to IMO instruments</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.

**· LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)**

None of the ingredients is listed.

**· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

**· REGULATION (EU) 2019/1148****· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

**· Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

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**
- **Substances of very high concern (SVHC) according to REACH, Article 57** Not applicable
- **Product-Code/Giscode:** BSW40

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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**

- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H351 Suspected of causing cancer.

- **Department issuing SDS:** KEIMFARBEN Germany, Product safety department

- **Version number of previous version:** 12.1

- **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
- 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 Irrit. 2: Serious eye damage/eye irritation – Category 2
- Carc. 2: Carcinogenicity – Category 2
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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