



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

Printing date 04.07.2022


Version number 14.0 (replaces version 13.0)

Revision: 04.07.2022

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

- **1.1 Product identifier**
- **Trade name: KEIM ATHENIT-FORTE**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture** Lime colour coat
- **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.
- **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
- **Signal word** Danger
- **Hazard-determining components of labelling:**
calcium dihydroxide
- **Hazard statements**
H315 Causes skin irritation.
H318 Causes serious eye damage.
- **Precautionary statements**
P102 Keep out of reach of children.

(Contd. on page 2)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2022

Version number 14.0 (replaces version 13.0)

Revision: 04.07.2022

Trade name: KEIM ATHENIT-FORTE

(Contd. of page 1)

- P280 Wear protective gloves/protective clothing/eye protection.
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.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

Additional information:

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures**Description:**

Aqueous compound of calcium dihydroxide, calcium carbonate, titanium dioxide, natural carbohydrate and cellulose

Dangerous components:

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	10-20%
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%

- **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.
Immediately remove any clothing soiled by the product.

- **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.

(Contd. on page 3)

DEN



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

Printing date 04.07.2022

Version number 14.0 (replaces version 13.0)

Revision: 04.07.2022

Trade name: KEIM ATHENIT-FORTE

(Contd. of page 2)

- **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.
- **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).
Ensure adequate ventilation
Avoid contact with skin and eyes.
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.
Dilute with plenty of water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Danger of slipping!
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.

DEN

(Contd. on page 4)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2022

Version number 14.0 (replaces version 13.0)

Revision: 04.07.2022

Trade name: KEIM ATHENIT-FORTE

(Contd. of page 3)

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.

Ensure good ventilation/exhaustion at the workplace.

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.

Unsuitable material for receptacles and pipes:

Aluminium

Zinc

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

· Further information about storage conditions:

Keep container tightly sealed.

Store in a cool place.

Protect from frost.

Protect from heat and direct sunlight.

· Storage class: 12

· GHS Code BSW60 Beschichtungsstoffe, wasserbasiert, alkalisch, ätzend

· 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:

1305-62-0 calcium dihydroxide

AGW (Germany) Long-term value: 1E mg/m³
2(I);Y, EU, DFG

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/m³
2(II);*alveolengängig**einatembare; AGS, DFG, Y

· DNELs

1305-62-0 calcium dihydroxide

Inhalative Acute - local effects 4 mg/m³ (consumer)

(Contd. on page 5)

DEN



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2022

Version number 14.0 (replaces version 13.0)

Revision: 04.07.2022

Trade name: KEIM ATHENIT-FORTE

(Contd. of page 4)

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

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

Aquatic compartment - freshwater	0.49 mg/l (Freshwater)
Aquatic compartment - marine water	0.32 mg/l (Seawater)
Aquatic compartment - water, intermittent releases	0.49 mg/l (not specified)
Terrestrial compartment - soil	1,080 mg/kg dw (soil)
Sewage treatment plant	3 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 aerosols.

Wash hands before breaks and at the end of work.

Immediately remove all soiled and contaminated clothing.

Ensure that washing facilities are available at the work place.

· Respiratory protection:

Use suitable respiratory protective device only when aerosol or mist is formed.

Filter: FFP2

· Hand protection

Protective gloves

Alkaline resistant gloves

· Material of gloves

suitable material e.g.:

Nitrile impregnated cotton-gloves

Butyl rubber, BR

Recommended thickness of the material: ≥ 0.5 mm

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 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

(Contd. on page 6)

DEN



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2022

Version number 14.0 (replaces version 13.0)

Revision: 04.07.2022

Trade name: KEIM ATHENIT-FORTE

(Contd. of page 5)

- **Body protection:**
Protective work clothing
After contact with skin wash thoroughly with water and apply lotion.
- **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

- **Physical state** Fluid
- **Colour:** Different, according to colouring.
- **Odour:** Odourless
- **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
- **Ignition temperature:** Not determined

· **Decomposition temperature:**

1305-62-0 calcium dihydroxide >580 °C

- **pH at 20 °C** ~11*
- **Viscosity:**
- **Kinematic viscosity** Not determined
- **Dynamic at 20 °C:** 1.200-1.900* mPas
- **Solubility**
- **water at 20 °C:** < 2 g/l (Ca(OH)₂)
Miscible
- **Partition coefficient n-octanol/water (log value)** Not applicable
- **Vapour pressure:** Not determined.
- **Density and/or relative density**
- **Density at 20 °C:** 1.5-1.6* g/cm³
- **Relative density** Not determined
- **Vapour density** Not applicable.

· 9.2 Other information

- **Appearance:**
- **Form:** Pasty

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

(Contd. on page 7)

DEN



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2022

Version number 14.0 (replaces version 13.0)

Revision: 04.07.2022

Trade name: KEIM ATHENIT-FORTE

(Contd. of page 6)

- **Important information on protection of health and environment, and on safety.**
- **Auto-ignition temperature:** Product is not selfigniting.
- **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
- **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**
Reacts in the setting phase with carbon dioxide (CO₂) from the air:
 $\text{Ca(OH)}_2 + \text{CO}_2 \rightarrow \text{CaCO}_3 + \text{H}_2\text{O}$.
- **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**
Reacts with light alloys in the presence of moisture to form hydrogen.
Reacts with strong acids and oxidising agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
Acids
Aluminium

(Contd. on page 8)

DEN



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2022

Version number 14.0 (replaces version 13.0)

Revision: 04.07.2022

Trade name: KEIM ATHENIT-FORTE

(Contd. of page 7)

- **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:**

1305-62-0 calcium dihydroxide

Oral	LD50	7,340 mg/kg (rat)
------	------	-------------------

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

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**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **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 ³ (rat) (90d)
------------	-------	----------------------------------

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)** Not applicable

(Contd. on page 9)

DEN



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2022

Version number 14.0 (replaces version 13.0)

Revision: 04.07.2022

Trade name: KEIM ATHENIT-FORTE

(Contd. of page 8)

11.2 Information on other hazards**Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information**12.1 Toxicity****Aquatic toxicity:****1305-62-0 calcium dihydroxide**

CL 50/96h 160 mg/l (fish)

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 (Freshwater sediment)
Hyalella aztecaEC50 > 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.**12.3 Bioaccumulative potential** Does not accumulate in organisms**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 TiO₂.**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

DEN

(Contd. on page 10)



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

Printing date 04.07.2022

Version number 14.0 (replaces version 13.0)

Revision: 04.07.2022

Trade name: KEIM ATHENIT-FORTE

(Contd. of page 9)

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
-----------	---

· **Uncleaned packaging:**

· **Recommendation:**

Disposal must be made according to official regulations.

Only empty containers may be recycled.

· **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:**

· **ADR**

· **Remarks:**

Not classified as dangerous good according to ADR/RID-GGVS/E.

· **IMDG**

· **Remarks:**

Not classified as dangerous good according to IMDG/GGVSee.

(Contd. on page 11)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2022

Version number 14.0 (replaces version 13.0)

Revision: 04.07.2022

Trade name: KEIM ATHENIT-FORTE

(Contd. of page 10)

· **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.· **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.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug 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**· **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:** BSW60· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

DEN

(Contd. on page 12)



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

Printing date 04.07.2022

Version number 14.0 (replaces version 13.0)

Revision: 04.07.2022

Trade name: KEIM ATHENIT-FORTE

(Contd. of page 11)

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.

H351 Suspected of causing cancer.

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

· **Version number of previous version:** 13.0

· **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 Dam. 1: Serious eye damage/eye irritation – Category 1

Carc. 2: Carcinogenicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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