Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 10.09.2024 Version number 1.0 Revision: 10.09.2024

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

· **1.1 Product identifier**

· **Trade name: KEIM TURADO 1.0**

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**

· **Application of the substance / the mixture**
Dry mortar to be mixed with water and then used as a bonding and renovation plaster for walls and ceilings indoors and outdoors.

· **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

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· **Hazard statements**
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
· **Precautionary statements**

P280	Wear protective gloves/protective clothing/eye protection.
P261	Avoid breathing dust.
P271	Use only outdoors or in a well-ventilated area.
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	13-15%
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	6-8%

· **Additional information:**
The cement used is low in chromate, as its content of soluble chromium (VI) is below 2 ppm (0.0002%).
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.

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· **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 out mouth and then drink plenty of 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**
· **Special 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.
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.

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· **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**
Avoid contact with skin and eyes.
Keep receptacles tightly sealed.
Prevent formation of dust.
Ensure good ventilation/exhaustion at the workplace.
Any unavoidable deposit of dust must be regularly removed.
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.
· **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
· **GISCode** ZP1 Zementhaltige Produkte, chromatarm
· **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 dust limit (Germany): Long-term value: 1.25 * 10 ** mg / m³ 2 (II);
* respirable fraction ** inhalable fraction
The national general dust limit value must be observed.

65997-15-1 Cement, portland, chemicals	
AGW (Germany)	Long-term value: 5 E mg/m³ DFG

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1305-62-0 calcium dihydroxide	
IOELV (EU)	Short-term value: 4 mg/m³ Long-term value: 1 mg/m³ Respirable fraction
AGW (Germany)	Long-term value: 1E mg/m³ 2(I);Y, EU, DFG

· **DNELs**

1305-62-0 calcium dihydroxide		
Inhalative	Acute - local effects	4 mg/m³ (consumer) respirable dust
		4 mg/m³ (worker) respirable dust
	Long-term - local effects	1 mg/m³ (consumer) respirable dust
		1 mg/m³ (worker) respirable dust

· **PNECs**

1305-62-0 calcium dihydroxide	
Aquatic compartment - freshwater	0.49 mg/l (Freshwater)
Aquatic compartment - marine water	0.32 mg/l (Seawater)
Terrestrial compartment - soil	1,080 mg/kg dw (soil)
Sewage treatment plant	3 mg/l (Microorganism)

· **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:**
Vacuum clean contaminated clothing. Do not blow or brush off contamination.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not inhale dust / smoke / mist.
· **Respiratory protection:**
In a dusty environment wear suitable facemask.
Filter: FFP2
· **Hand protection**
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

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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 trough 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
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**	Solid
· **Colour:**	White
· **Odour:**	Odourless
· **Odour threshold:**	Not determined
· **Melting point/freezing point:**	>1250 °C
· **Boiling point or initial boiling point and boiling range**	Not applicable.
· **Flammability**	Not applicable
· **Lower and upper explosion limit**	
· **Lower:**	Not applicable
· **Upper:**	Not applicable
· **Flash point:**	Not applicable
· **Auto-ignition temperature:**	Not determined

· **Decomposition temperature:**

1305-62-0	calcium dihydroxide	>580 °C

· **pH at 20 °C**	11-13.5* mixed with water
· **Viscosity:**	
· **Kinematic viscosity**	Not applicable
· **Dynamic:**	Not applicable
· **Solubility**	
· **water at 20 °C:**	< 3 g/l (Ca(OH)2)
· **Partition coefficient n-octanol/water (log value)**	Not applicable

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· **Vapour pressure:**	Not applicable.
· **Density and/or relative density**	
· **Density:**	Not determined
· **Relative density**	Not determined
· **Bulk density:**	1.300-1.600* kg/m³
· **Vapour density**	Not applicable.
· **Particle characteristics** See section 3.	
· **9.2 Other information**	* The values are for freshly produced material and may change with the time.
· **Appearance:**	
· **Form:**	powdery, grainy
· **Important information on protection of health and environment, and on safety.**	
· **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 with water alkaline and hardens.

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· **10.2 Chemical stability**
· **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
Aluminium
· **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	>2,000 mg/kg (rat) (OECD 425)
Dermal	LD50	>2,500 mg/kg (rabbit) (OECD 402)

· **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.
· **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.
· **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.
· **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:**	
1305-62-0 calcium dihydroxide	
NOEC	48 mg/l (Freshwater algae) (72h)
	32 mg/l (marine invertebrate organisms) (14d)
EC10/LC10 oder NOEC	2,000 mg/kg (Soil macroorganisms)
	12,000 mg/kg (soil microorganisms)
NOEC	1,080 mg/kg (plants) (21d)
EC 50/48h	49.1 mg/l (freshwater invertebrate organisms)
EC 50/72 h	184.57 mg/l (Freshwater algae)
LC 50/96 h	457 mg/l (marine fish)
	50.6 mg/l (freshwater fish)
	158 mg/l (marine invertebrate 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.
· **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:**
· **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

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.
Unused remainders of the product should be regarded as hazardous waste.
Recommendation for non-reusable residues: Mix with water and allow to harden.
Allow wet product and product sludge to harden and do not allow to get into drains or waterways.
Dispose hardened product as concrete waste.

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· **European waste catalogue**	
17 01 01	concrete

· **Uncleaned packaging:**
· **Recommendation:**
Non contaminated packagings may be recycled.
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

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.

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· **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))**
Not relevant.

· **ANNEX I EXPORT SUBSTANCES DECLARABLE FOR EXPLOSIVES in quantities > 1%.**
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:** 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:**
BOELV: Binding Occupational Exposure Limit Values
IOELV : Indicative Occupational Exposure Limit Values
OELV: Occupational Exposure Limit Value

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