

**SAFETY DATA SHEET 134**

# TADELAKT

## 1 IDENTIFICATION OF THE MIXTURE AND THE COMPANY

### 1.1 Product identifier

Product name TADELAKT

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

Description/Application Decorative mineral coating powder soluble in water

### 1.3 Details of the supplier of the safety data sheet

Name: BERICALCE S.R.L.  
Full address: Via Piave, 23 - 36033 Isola Vicentina (VI)  
Phone: +39 0444 929102 +39 0444 654919  
Fax: +39 0444 929102  
E-mail address of the competent person responsible to the Safety Data Sheet: info@bericalce.com

### 1.4 Emergency telephone number

For urgent inquiries refer to SANITARY EMERGENCY

## 2. HAZARD IDENTIFICATION

### 2.1 Classification of the substance or mixture

The product is classified as hazardous according to the provisions of Regulation (EC) 1272/2008 (CLP) (and subsequent amendments and adaptations). The product thus requires a safety data sheet that complies with the provisions of Regulation (EC) n. 1907/2006 and subsequent amendments. Further information on the risks to health and/or the environment are given in sec. 11 and 12 of this sheet.

Hazard classification and indication:

Serious eye damage, category 1	H318	It causes serious eye damage.
Skin irritation, category 2	H315	It causes skin irritation.
Specific toxicity for target organs - single exposure, category 3	H335	It may cause respiratory irritation.
Skin sensitization, category 1	H317	It may cause allergic skin reaction.

### 2.2 Label elements

Danger labeling under Regulation (EC) 1272/2008 (CLP) and subsequent amendments.



Warnings:



Danger:

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## Hazard:

H318	It causes serious eye damage.
H315	It causes skin irritation.
H335	It may cause respiratory irritation.
H317	It may cause an allergic skin reaction.

## Safety advice:

P264	To wash hands thoroughly with soap and water after use.
P272	Contaminated work clothing should not be allowed out of workplace.
P280	Wear protective gloves and protect eyes / face.
P304+P340	IF INHALED: move the victim to fresh air and keep at rest in a position comfortable for breathing.
P310	Immediately call a POISON CENTER or get medical advice/attention.
P403+P233	Keep container tightly closed and in a well-ventilated place..
It contains:	Hydrated lime Concrete Portland Cr(VI) < 2 ppm

**2.3 Other dangers**

Based on available data, the product does not contain any PBT or vPvB substances as more than 0,1%

**3 COMPOSITION / INFORMATION ON INGREDIENTS****3.1 Substance**

No relevant information.

**3.2 Mixtures**

It contains:

Identification	Conc. %	Classification 67/548/CEE. Classification 1272/2008 (CLP).
<u>CALCIUM CARBONATE</u>		
CAS. 471-34-1	55 - 60	Substance with a community exposure limit in the workplace
CE. 207-439-9		
INDEX. -		
<u>HYDRATE LIME</u>		
CAS.1305-62-0	20 - 30	Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335
CE. 215-137-3		
INDEX. -		
<u>WHITE CONCRETE</u>		
CAS. 65997-15-1	10 - 20	Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317
CE. 266-043-4		
INDEX. -		

The full text of hazard (H) is specified in section 16 of the sheet.

**4 FIRST AID MEASURES****4.1 Description of first aid measures**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention.

Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take precautions for rescue workers.

**4.2 Most important symptoms and effects, both acute and delayed.**

For symptoms and effects caused by the contained substances, see chap. 11.

**4.3 Indication of any immediate medical attention and special treatment needed.**

Follow doctor's instructions.

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## 5 FIREFIGHTING MEASURES

### 5.1 Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be conventional: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use water.

### 5.2 Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

### 5.3 Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

EQUIPMENT

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

## 6 ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing dust and provide adequate ventilation or wear a protective mask or an adequate protective equipment (see section 8).

Wear suitable protective equipment (including personal protective equipment referred to in section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These directions are valid both for the workers to work which for emergency interventions.

### 6.2 Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

### 6.3 Methods and material for containment and cleaning up

Use dry cleanup methods such as vacuum cleaners or vacuum extraction (greased portable industrial, equipped with high efficiency particulate filters or equivalent techniques) that do not scatter dust in the environment.

Never use compressed air. Ensure that workers wear appropriate personal protective equipment (see section 8) in order to prevent inhalation of dust and contact with skin and eyes. Deposit spillage in containers for future use. Verify the compatibility of containers' material in section 7. Ensure adequate ventilation of the place affected by the loss. The disposal of contaminated material must be made in accordance with section 13.

### 6.4 Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

## 7 HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Handle the product after consultation with all other sections of the sheet. Store in sealed and labeled containers. Avoid dispersal into the environment. Avoid contact with eyes and skin and exposure to concentrations of dust holes. Avoid the development and deposition of dust. Use a localized ventilation system. Do not eat, nor drink, nor smoke while handling it. Remove contaminated clothing and equipment before entering eat areas.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

### 7.3 Specific end use(s)

Information not available.

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## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1 Control parameters

EU	OEL EU	Directive 2009/161/UE; Directive 2006/15/CE; Directive 2004/37/CE; Directive 2000/39/CE.
	TLV-ACGIH	ACGIH 2014

**CALCIUM CARBONATE****Threshold limit value**

Type	State	TWA/8h mg/m <sup>3</sup>	ppm	STEL/15min mg/m <sup>3</sup>	ppm	
TLV-ACGIH		10				inalab.
TLV-ACGIH		3				respir.

**HYDRATED LIME****Threshold limit value**

Type	State	TWA/8h mg/m <sup>3</sup>	ppm	STEL/15min mg/m <sup>3</sup>	ppm	
OEL	EU	1		4		respir.
TLV-ACGIH		5				
Expected concentration of no effect on the environment - PNEC.						
Reference value in fresh water				490		mg/l
Reference value for the terrestrial compartment				1080		mg/l

**WHITE CONCRETE****Threshold limit value**

Type	State	TWA/8h mg/m <sup>3</sup>	ppm	STEL/15min mg/m <sup>3</sup>	ppm	
TLV-ACGIH		1				

Legend:

(C) = CEILING ; INALAB = inhalable fraction ; RESPIR = Respirable fraction ; TORAC = Thoracic fraction.

VND = identified hazard but no DNEL/PNEC available; NEA = no expected exposure;

NPI = no hazard identified.

It is recommended to consider in the process of risk assessment values for occupational exposure limits established by ACGIH for inert dusts not otherwise classified (PNOC respirable fraction: 3 mg/mc; PNOC inhalable fraction 10 mg/mc). If these limits are exceeded, we recommend the use of a P-type filter, the class (1, 2 or 3) must be chosen depending on the outcome of the risk assessment.

## 8.2 Exposure controls

As the use of adequate technical equipment must always take priority over personal protection equipment, ensure good ventilation in the workplace through effective local aspiration. For the selection of personal protective equipment, if necessary, request advice from your chemical substance suppliers.

The personal protective equipment must bear the CE marking attesting to their compliance with applicable regulations. Provide emergency shower with a pan for face and eyes.

**HAND PROTECTION**

Protect your hands with work gloves, category III (ref. standard EN 374). Final selection of the material of the gloves must be considered: compatibility, degradation, breakage times and permeation. In the case of preparations the resistance of protective gloves to chemicals should be checked before use, as expected. The gloves' limit depends on the duration and method of use.

**SKIN PROTECTION**

Wear work clothes with long sleeves and safety footwear for professional use category II (ref. Directive 89/686/EEC and law EN ISO 20344). Wash with soap and water after removing protective clothing.

**EYE PROTECTION**

We recommend wearing hood visor or protective visor together with airtight goggles (ref. law EN 166).

**RESPIRATORY PROTECTION**

We recommend the use of a P-type filtering face mask (ref. law EN149), or equivalent device, the class (1, 2 or 3) and actual need will be defined depending on the outcome of the risk assessment.

**ENVIRONMENTAL EXPOSURE CONTROLS**

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	powder
Colour	white
Odour	odorless
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	> 60 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	Not available
Solubility	Not available
Partition coefficient:: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

### 9.2 Other information not available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.  
When mixed with water, it hardens forming a stable mass that does not react with the environment.

### 10.2 Chemical stability

The product is stable in normal conditions of use and storage.  
It must be kept dry. It should be avoided contact with incompatible materials.  
The wet concrete is alkaline and incompatible with acids, with ammonium salts, with aluminum and other non-noble metals. The concrete in contact with the hydrofluoric acid decomposes producing corrosive silicon tetrafluoride gas. The concrete reacts with the water and forms silicates and calcium hydroxide.  
Silicates in cement react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride and oxygen difluoride.  
The package integrity and compliance with the conservation mode mentioned in section 7.2 are able to conserve the quality.

### 10.3 Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.  
Hydrated lime reacts esothermically with acids. If heated to more than 580°C, calcium dihydroxide decomposes to form calcium oxide (CaO) and water (H<sub>2</sub>O):  $\text{Ca(OH)}_2 \rightarrow \text{CaO} + \text{H}_2\text{O}$ .  
Calcium oxide reacts with water, generating heat. This can endanger the flammable material.  
Concrete decomposes with hydrofluoric acid with formation of H<sub>2</sub>SiF<sub>6</sub> (silicon tetrafluoride), which is corrosive.  
Concrete reacts with water to form silicates and calcium hydroxide. Silicates in concrete react with powerful oxidizers such as fluorine, boron trifluoride, manganese trifluoride and oxygen difluoride.

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## 10.4 Conditions to avoid

Prevent the accumulation of dust in the environment.

Conditions of moisture during storage may cause lump formation and loss of product quality.

## 10.5 Incompatible materials

Keep away from water or from damp environments.

The wet concrete is alkaline and incompatible with acids, with ammonium salts, with aluminium and other non-noble metals. In contact with the wet concrete aluminium powder causes the formation of hydrogen.

Hydrated lime reacts exothermically with aluminium and with the brass, thus forming hydrogen.

## 10.6 Hazardous decomposition products

Under normal conditions of storage and use, should be no hazardous decomposition products.

Hydrated lime reacts with the carbon dioxide, forming calcium carbonate, a widespread substance in nature.

## 11 TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

In the absence of experimental toxicological data on the product itself, the possible health hazards of the product were evaluated based on the properties of the substances contained, according to the criteria laid down by the relevant regulations for the classification.

Therefore, consider the concentration of each hazardous substances possibly mentioned in sect. 3, to assess toxicological effects resulting from exposure to the product.

The product causes serious eye injury and may cause corneal opacity, iris lesions, irreversible eye coloration.

Acute effect: contact with skin may cause irritation, erythema, edema, dryness and chapped skin.

Ingestion may cause health disorders, including stomach pain and sting, nausea and vomiting.

Acute effects: inhalation of this product may irritate the lower and upper respiratory tract with coughing and difficulty breathing; at higher concentrations may also cause pulmonary edema. Ingestion may cause health disorders, including stomach pain and sting, nausea and vomiting.

Upon contact with skin causes sensitization (dermatitis).

Dermatitis derives as a result of an inflammation of the skin, which begins in the skin areas which repeatedly come into contact with the sensitizing agent.

Cutaneous lesions may include erythema, edema, papules, vesicles, pustules, scales, drying, cracking and skin thickening.

Calcium carbonate

LD50 (Oral).> 6450 mg/kg Rats

Hydrated lime

LD50 (Oral).> 2000 mg/kg Rats (OECD 425)

LD50 (Cutaneous).> 2500 mg/kg Rabbit (OECD 402)

## 12 ECOLOGICAL INFORMATION

Use this product according to good working practices. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

### 12.1 Toxicity

HYDRATED LIME

LC50 - Fish.

> 50.6 mg/l/96h Freshwater fish

EC50 - Shellfish

> 49.1 mg/l/48h

EC50 - Algae / Water plants

> 184.57 mg/l/72h

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## 12.2 Persistence and degradability

After hardening, the product does not present a risk of toxicity.

## 12.3 Bioaccumulative potential

Information not available

## 12.4 Mobility in soil

It may spread during manipulation in the form of powder

## 12.5 Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%

## 12.6 Other adverse effects

Information not available

## 13 DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Reuse, when possible. Neat product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations. Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

## 14 TRANSPORT INFORMATION

### 14.1 ONU number

Not applicable.

### 14.2 ONU shipping name

Not applicable.

### 14.3 Hazard classes connected to shipping

Not applicable.

### 14.4 Packaging group

Not applicable.

### 14.5 Environmental hazards

Not applicable.

### 14.6 Special precautions for users

Not applicable.

### 14.7 Shipping of bulk according to MARPOL 73/78 annex and the IBC code

No relevant information.

## 15 REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006 None

Substances in Candidate List (Art. 59 REACH): None

Substances subject to authorisation (Annex XIV REACH): None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012: None

Substances subject to the Rotterdam Convention: None

Substances subject to the Stockholm Convention: None

Healthcare controls

Workers exposed to this chemical agent to health must undergo health checks according to the provisions of art. 41 of Legislative Decree n. 81 of April 9th 2008, unless the risk for the safety and health of the worker has been assessed irrelevant, according to art. 224 paragraph 2.

### 15.2 Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.



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## 16 OTHER INFORMATION

Text of indications of hazard H) mentioned in section 2-3 of the sheet:

Eye Dam. 1	Serious eye damage category 1
Skin Irrit. 2	Skin irritation, category 2
STOT SE	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Sensibilizzazione cutanea, categoria 1
H318	It causes serious eye damage
H315	It causes skin irritation
H335	It can cause respiratory irritation
H317	It can cause allergic skin reaction.

## LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

## GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website



# **TADELAKT**

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Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version.

Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations.

The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

**BeriCalce S.r.l.**

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