

## Amount Required

The amount of CaSoPaL<sup>®</sup> required will depend on the size of the area to be treated, the extent of microbiological growth present and the character of material requiring strengthening / consolidating. In general 100 mL/m<sup>2</sup> are sufficient. On highly porous substrates the amount of CaSoPaL<sup>®</sup> required will be more.

## Availability

CaSoPaL<sup>®</sup> is available in 500 mL spray bottles. For other units please enquire.

## Stability

In the original unopened containers stored in cool ambient conditions (free of frost), CaSoPaL<sup>®</sup> is stable for at least 6 months. Previously opened containers should be protected from high humidity and the ingress of air.

By ensure that their lids are tightly closed. Any sedimentation of the lime particles can be corrected by shaking the product well before use.



## Production and distribution:

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For more information and advice do not hesitate  
to contact us.

**Use CaSoPaL<sup>®</sup> safely. Read product information  
and see labelling before usage.**  
**Biocide-Number: N41000**

The information mentioned above is state of the art. The application of our products and the work using it is beyond the range of our influence. Therefore IBZ-Salzchemie GmbH & Co.KG can take no liability from events that result from the information contained in this leaflet. Careful and considered use of CaSoPaL<sup>®</sup> is highly recommended. Please consult us for help. (November 2010)



# CaSoPaL<sup>®</sup>

## Safe removal of biological growth

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## Effectiveness

The growth of algae, Fungi and other microorganisms is not only a problem on domestic premises but also on the refurbishment of buildings and historic monuments.

Such growth is especially problematic for the conservation of historic monuments. Not only must they be removed but, in many cases, growth starts again soon after work is complete. A common reason for this is the stone strengthener employed for the restoration. Most contain organic components that can provide a source of nutrients for microorganisms. To prevent this biocides are often used, however, the diversity of those available and the hazards that their use can introduce to humans, the environment and the treated area itself are undesirable.

CaSoPaL<sup>®</sup> is the first product that combines the disinfection properties of alcohol with the long-term effects of lime and it offers the possibility of the strengthening of the ground material at the same times as removing biological growth and inhibiting its return. The alcohol desiccates the cells of microorganisms causing their death. The nano-lime penetrates deep into the damaged zones, stays there and changes its pH.

Many of the microorganisms found on structural materials prefer neutral or slightly acidic conditions. New growth is thus prevented. The nano-lime that stays within in the matrix of the material carbonises over time to forms a while limestone by the reaction with atmospheric carbon dioxide. This is the mechanism of the strengthening effect. There is no need for the application of other products, however, CaSoPaL<sup>®</sup> is compatible with many other consolidation technologies and these can be applied after if required. Studies have shown that the use of CaSoPaL<sup>®</sup> alone results in a good increase in strength.

## The advantage of CaSoPaL<sup>®</sup>?

- no additional fungicidal treatments are required
- no chlorine will be liberated
- spores, microbial cells and surface debris are absorbed safely
- very good penetration is achieved
- strengthening of the stone is facilitated by the formation of limestone
- no harmful byproducts stay in the treated area
- no corrosion of metal reinforcement can occur
- the effects achieved have a long life



## Working directions

A two-stage application is recommended. At first, the microorganisms should be treated by CaSoPaL<sup>®</sup> such that the absorption of spores, germs and surface debris is guaranteed. After the evaporation of the alcohol, mechanical cleaning is possible, for example, by vacuum cleaner or broom. After cleaning, the second application with CaSoPaL<sup>®</sup> takes place. This is the step that insures the long term effect on strength and the prevention of microbiological growth. It is also forms the basis for the application of other materials. Application can be made by coating or by spraying. The best effects are achieved by the post application of a lime-based paint or other products that are based on lime.



## Hazard warnings

CaSoPaL<sup>®</sup> is highly alkaline and readily flammable due to the alcohol it contains. For application, appropriate arrangements are therefore necessary. During application on large areas, the formation of alcoholic and flammable vapour can take place. Do not use near naked flames or other sources of ignition and ensure that the area is well ventilated. Breathing protection, gloves, eye protection and good ventilation are necessary. Please also read the technical information sheet and the material safety data sheet.