



SOLUMIUM® DENTAL

ANTIMICROBIAL SOLUTION FOR PATIENTS
TO TREAT DENTAL, SKIN, AND MUCOUS MEMBRANE INFECTIONS
30 ml

INSTRUCTIONS FOR USE

BASIC FACTS

SOLUMIUM® DENTAL is an antimicrobial solution for the treatment of oral, skin, and mucous membrane infections. It kills all pathogens including bacteria, fungi, protozoa, and viruses, including those in microbial biofilms responsible for various infections. At the same time, SOLUMIUM® DENTAL is not harmful to humans (see paragraph "SCIENTIFIC BACKGROUND").

SOLUMIUM® DENTAL does not sting, and may freely come into contact with the teeth, the skin, and the mucous membrane. The product does not discolor teeth. It does not induce a hardening or metaplasia of the mucous membrane of the mouth.

Chemically, SOLUMIUM® DENTAL is an aqueous solution of high purity chlorine dioxide (ClO₂), the compound responsible for the liquid's yellow color, and characteristic smell. There are no other ingredients in it. SOLUMIUM® products are made using a new, patented method [2].

The product is highly volatile. After treatment, it evaporates with no residues, enabling the treated region to heal naturally. Because of the product's volatility, please close bottle cap tightly, immediately after use. If the solution depletes, its yellow color fades. If the liquid becomes colorless, it is ineffective.

Please avoid spilling the product on clothes, as it may discolor them.

SOLUMIUM® DENTAL - HOW TO APPLY:

1. Acute dental pain, and inflammatory diseases: brushing

An inflammation of the teeth, or of the tooth gum, caused by a bacterial infection, can be treated by brushing using undiluted SOLUMIUM® DENTAL.

Use a cotton swab dipped into undiluted SOLUMIUM® DENTAL to gently brush the area to be treated, for about 30 seconds. Apply at the focus of the pain (often the gap between the gum and the teeth). Use one end of the swab only once, and then change for the other end, or another swab. Keep brushing for a total of about 2 minutes. Pain normally decreases after 15-20 minutes. After 2-3 hours, the treated area is sensitive only when pressed. Repeat the treatment procedure after 6 hours, and again the next day, until symptoms cease completely.

The treated area may become asymptomatic for a long time. In the case of damaged teeth, however, the bacterial infection may recur, so it is also advisable to consult your dentist.

2. Canker sore, herpes, contagious mouth diseases: brushing

Bacterial or fungal infections of the mouth, canker sore (oral aphthae), and oral or facial herpes can be treated by brushing using undiluted SOLUMIUM® DENTAL.

Use a cotton swab dipped into undiluted SOLUMIUM® DENTAL to gently brush the area to be treated, for about 30 seconds. Use one end of the swab only once, and then change for the other end, or another swab. Keep brushing for a total of 1-2 minutes. Brush once or twice per day, preferably after toothbrushing, until symptoms resolve.

In case of herpes, it is important to start treatment immediately after the first weak signs (eg, itching) are identified, so that scar formation and crusting can be prevented.

3. Scratches and abrasions of the skin: bandage dampened with SOLUMIUM® DENTAL

Clean the area to be treated, let it dry, and wait until bleeding lessens or stops. Then pour a few drops of undiluted SOLUMIUM® DENTAL onto the padding of an adhesive bandage, and apply the bandage to the wound. A wound already covered with a gauze pad can also be disinfected by pouring SOLUMIUM® DENTAL onto the gauze, until the liquid reaches the surface of the wound. (Note: the liquid will evaporate from the gauze with no residue.)

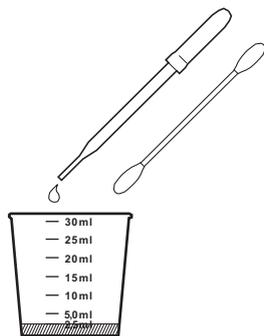
4. Fungal skin infections: brushing

To treat various fungal infections of the skin (like athlete's foot, yeast infection in skin folds, Jock Itch, etc.) use a cotton swab (or a cotton wool pad) dipped into diluted SOLUMIUM® DENTAL, for brushing. Apply in the evening and in the morning, for 3-4 days.

Steps of the brushing:

1. Fill the included measuring cup with lukewarm water, to the 2.5 ml mark.
2. Use the supplied dropper to add 15 drops of SOLUMIUM® DENTAL to the water (see use of dropper overleaf).
3. Close the bottle.
4. Dip the cotton swab into the solution in the cup, and use it to brush the skin area to be treated, for about 30 seconds. Use one end of the swab only once, and then change for the other end, or another swab. Keep brushing for a total of 1-2 minutes.

After treatment, the use of a soothing cream is recommended. To avoid recurrence, repeat the procedure the next day.

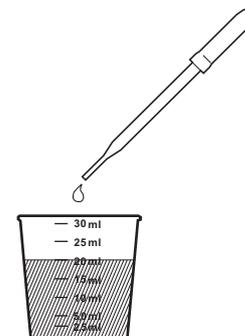


5. Sore throat: gargling

To treat an acute pharyngitis (inflammation of the throat or pharynx) gargle with diluted SOLUMIUM® DENTAL according to the steps below:

1. Fill the included measuring cup with lukewarm water, to the 20 ml mark.
2. Use the supplied dropper to add 20 drops of SOLUMIUM® DENTAL to the water (see use of dropper below).
3. Close bottle.
4. Use the diluted liquid for gargling 2-3 times. One throat rinse should last at least 10 seconds.

If pain still persists after 10 minutes, repeat the treatment with a higher concentration. In this case, fill the cup with lukewarm water to the 20 ml mark again, but now add 30 drops of SOLUMIUM® DENTAL. The pain caused by the disease usually decreases noticeably within 5-10 minutes after treatment, and later it goes away completely. The treatment should nevertheless be carried out two more times, about 6 and 12 hours after the first treatment.



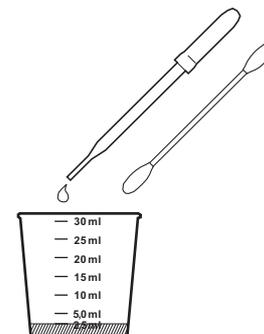
6. Gingivitis (inflammation of the tooth gum): brushing, rinsing

Use a diluted SOLUMIUM® DENTAL and a cotton swab to brush the inflamed tooth gum, over the course of 3-4 days, twice a day.

Steps of the brushing:

1. Fill the supplied measuring cup with lukewarm water, to the 2.5 ml mark.
2. Use the supplied dropper to add 15 drops of SOLUMIUM® DENTAL to the water (see use of dropper below).
3. Close bottle.
4. Dip a cotton swab into the solution in the cup, and use it to brush the infected area of the gums, for about 30 seconds. Use one end of the swab only once, and then change for the other end, or another swab. Keep brushing for a total of 1-2 minutes.

If gingivitis is extended - i.e. not restricted to a defined smaller area - then perform a mouthwash using the same dilution of SOLUMIUM® DENTAL as in the case of a sore throat (20 ml lukewarm water + 20 drops). Flush for one minute in the morning and in the evening, again for 3-4 days. If the sputum is dark during treatment, rinse once again, as the presence of blood reduces the effect of the solution.



7. Blocked nose: dampened cotton wool, or brushing

For the treatment of a nose blocked by the common cold, put a piece of cotton wool soaked in diluted SOLUMIUM® DENTAL (dilution as in paragraph 4) into both nostrils for a few minutes. Alternatively, you can use a cotton swab soaked with the diluted product to brush both nostrils.

If the above treatment is not effective enough, then add just 1-2 drops of SOLUMIUM® DENTAL to 2.5 ml water, and use that solution as a nasal drop.

The permeability of the nasal passages will improve about 5 minutes after treatment, and breathing through the nose normally becomes easy after about 30 minutes. The treatment should be repeated after about 12 hours.

SOLUMIUM® DENTAL has no known long-term side effects.

If applied at an acute injury area on the mucous membrane, a temporary and mild feeling of burning might occur. Directly after treatment in the mouth, a temporary feeling of drought and a reduced sense of taste may arise, with a possible increase in the secretion of saliva. These mild symptoms cease completely within 12 hours.

USING THE SUPPLIED DROPPER: Take out the two parts of the supplied dropper from the plastic bag, and pull the rubber cap onto the wider end of the glass tube. Hold the rubber cap between two fingers, and squeeze it. Dip the narrow end of the dropper into the liquid, and loosen the grip on the rubber cap to suck up the liquid into the dropper. Lift out the charged dropper, and pour the required number of drops into the measuring cup by gently pressing the rubber cap of the dropper. Pour back any excess liquid from the dropper into the glass bottle by fully squeezing the rubber cap. After use, disassemble dropper, and place it back into the plastic bag.

SCIENTIFIC BACKGROUND

SOLUMIUM® DENTAL is an aqueous solution of high purity chlorine dioxide (ClO₂). Chlorine dioxide is an ideal local antiseptic: it is typically more effective than any other antimicrobial agent or disinfectant, while it is harmless to humans [1]. The use of chlorine dioxide as an antimicrobial agent has previously been stalled because it was not available in a clean and stable solution. SOLUMIUM® products contain chlorine dioxide in very high purity made possible by a new patented invention [2]. The high purity of SOLUMIUM® means that it is harmless to human tissues, and its storage time is greatly extended. Chlorine dioxide is a so-called size-selective antimicrobial agent: in the concentration needed for treatment it kills all the microbes rapidly but cannot harm the much larger humans during the few minutes of a treatment [1].

[1] "CHLORINE DIOXIDE IS A SIZE-SELECTIVE ANTIMICROBIAL AGENT" (Plos One, November 5, 2013)

[2] "PERMEATION METHOD AND APPARATUS FOR PREPARING FLUIDS CONTAINING HIGH PURITY CHLORINE DIOXIDE" (WO/2008/035130)

INGREDIENTS: High purity chlorine dioxide (ClO₂) (CAS: 10049-04-4) (0,12% / 1200ppm), water.

ANTIMICROBIAL SPECTRUM: Bactericide, fungicide, virucide.

DO NOT MIX WITH OTHER ANTIMICROBIAL AGENTS.

KEEP OUT OF REACH OF CHILDREN.

STORAGE: Close the bottle firmly, immediately after use. Keep the bottle in a dark, cool place, like a refrigerator, above freezing point. If not placed in a refrigerator, the bottle should be put back into its box, to protect it from light. Do not expose the bottle to strong sunlight for a longer time, as that can decrease its concentration.

BEST BEFORE: Potency of the unopened, properly stored product is guaranteed for 2 years from date of manufacture. See date of expiry on packaging. Please note that the product may still be effective even after several years of storage as long as it is yellow.

ECOTOXICITY: Toxic to aquatic life. Must be diluted to a concentration below 0.8 ppm before discharging to surface water or ground water.

MANUFACTURED BY: Solumium Ltd., Rozmaring u. 19., H-1118 Budapest, Hungary

PATENTS: EP2069232; US 8,512,671; CN101605720

MEDICAL DEVICE

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MADE IN HUNGARY

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