

The power of water

LAVANOX®

Solutions



LAVANOX®
wound irrigation
solution

LAVANOX®
wound spray

LAVANOX®
wound spray gel



150
YEARS
1866 - 2016



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LAVANOX® wound irrigation solution and wound spray



Effective against bacteria, viruses and fungi ¹

Suitable for use against Pseudomonas and MRSA ^{1,5}

Reduces biofilm and deposits ^{1,2}

Eliminates wound odours ^{2,5}

Product description

LAVANOX® wound irrigation solution and LAVANOX® wound spray are medical devices based on water with 0.08% sodium hypochlorite. The sodium hypochlorite contained in LAVANOX® ensures reliable preservation and makes LAVANOX® a well-tolerated and efficient option for state-of-the-art wound management.

LAVANOX® products are alcohol-free and work in a purely physical way. Natural starting materials of mineral salt and water mean that the products are well tolerated.

The mechanical effects of LAVANOX® ensure thorough cleansing of the wound and surrounding area, thus creating a milieu that promotes healing. In addition, LAVANOX® rapidly and reliably eliminates unpleasant odours from the wound.

The preservative sodium hypochlorite prevents the growth of bacteria (such as *Pseudomonas aeruginosa*,

MRSA and MDRO), viruses and fungi in the solution and on moist wound dressings.

LAVANOX® products are manufactured by means of electrochemical activation (ECA) and have a long shelf life both unopened and once in use.

Indications

LAVANOX® wound irrigation solution and wound spray are used for cleaning wounds and as prophylaxis against infection; they are used for both acute and chronic wounds, especially contaminated and dirty wounds with a high risk of infection.

LAVANOX® wound irrigation solution and LAVANOX® wound spray help to remove biofilm and fibrin efficiently and gently, and cause minimal pain when used in the removal of wound inlays and dressings that are encrusted and difficult to detach.

References: ¹ Brill FHH. Data on file. 2013

² Kammerlander G, Assadian O, Eberlein T, Zweitmuller P, Luchsinger S, Andriessen A. A clinical evaluation of the efficacy and safety of singlet oxygen in cleansing and disinfecting stagnating wounds. *J Wound Care*. 2011 Apr;20(4):149-50



Method of use

First of all, clean any dirt, blood and deposits from the wound. Then irrigate the affected area generously with LAVANOX® or spray several times to wet the area completely.

After using LAVANOX®, there is no need to clean the wound with any other solution. There are no restrictions on the frequency or duration of use. LAVANOX® products cause no irritation and minimal pain.

Shelf life



After opening:
12 weeks



Unopened:
2 years from date of
manufacture

+ Benefits

Effective cleansing

The electrolytic process reduces the cluster size of the water from 15-20 molecules to about 5-7 molecules, thereby greatly diminishing the surface tension.^{1,4} This allows effective irrigation of even the most inaccessible areas of the wound. Sodium hypochlorite is both a preservative and an oxidising agent. Thanks to its broad spectrum of activity against bacteria (including *Pseudomonas aeruginosa*, MRSA/MDRO), viruses and fungi, non-specific decontamination of wounds is possible.^{1,4}

Well tolerated

LAVANOX® is well tolerated by the tissues, as has been confirmed by cytotoxicity studies. In the hen's egg test on chorioallantoic membrane (HET-CAM), LAVANOX® caused no changes at all or only minimal irritation.¹ Allergy testing (patch testing) did not reveal any sensitisation and there were likewise no toxic or irritant effects on the tissue.¹ Healthy cells have natural protective mechanisms against the redox processes initiated by sodium hypochlorite and are therefore not affected by LAVANOX®.⁴

Sustainably natural

After their use, LAVANOX® products regress to their natural state - water and salt.⁴ There is no environmental impact from their production, use or disposal. LAVANOX® medical devices have purely physical effects, making the products environmentally friendly alternatives for many different uses.

³ Kramer A. Wundantiseptik. ARS MEDICI. 2016 (9): 419-426

⁴ Lorberth J, Massa W. Zu den chemischen Grundlagen der Wirkung von Steralythen. Wund Management 2012 (3): 52-54

LAVANOX® wound spray gel

Innovative dosage form: Hydrogel for use as a spray



Product description

LAVANOX® wound spray gel is a hydrogel in an innovative dosage form for use as a spray. It is based on water with <0.06% sodium hypochlorite as preservative. LAVANOX® wound spray gel is quick and easy to apply and remains in the wound as the hydrogel.

LAVANOX® hydrogel keeps the wound moist for long periods and does not require subsequent irrigation with any other solution. LAVANOX® wound spray gel causes no irritation and minimal pain.

Indications

LAVANOX® wound spray gel is used to clean and moisten acute and chronic wounds and supports autolytic wound débridement. Hydrogels are extremely suitable for moistening wounds and for use on preservative inlays and dressings. Thanks to their effective cleansing, they promote the physiological conditions required for wound healing.

Method of use

Before using the gel for the first time and at every dressing change, clean the wound thoroughly with LAVANOX® wound irrigation solution or LAVANOX® wound spray. Shake the bottle of LAVANOX® wound spray gel well before use and apply directly to the wound by spraying several times in rapid succession. Immediately after it has been sprayed on, the solution solidifies to form a well-adhering hydrogel. LAVANOX® wound spray gel can be used in combination with gauze compresses, adhesive plasters and other dressing materials. There are no restrictions on the frequency or duration of use.

Shelf life



After opening:

12 weeks

Unopened:

2 years from date of manufacture

Composition

Water, <0.06% sodium hypochlorite (electrochemically activated mineral salt solution), lithium magnesium sodium silicate

No restriction on duration of use ³

Excellent tissue tolerability ¹

No further irrigation required ³

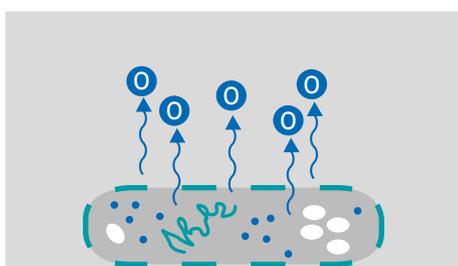
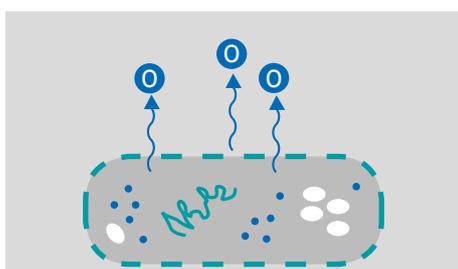
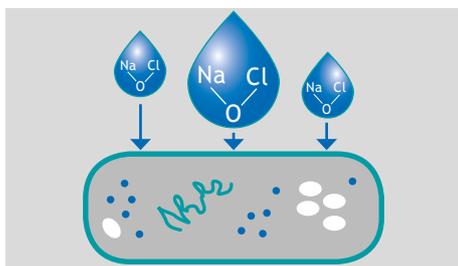
No development of resistance ^{1,3}

⁵ Möller A, Splieth B, Schmitz M, Eberlein T. Produkte auf Basis elektrochemischer Aktivierung (ECA) im erweiterten medizinischen Einsatz. *Medizin & Praxis*. 2016 (in Druck)

Production and stability



Simplified diagram of a bacterium after the application of LAVANOX®



Sodium hypochlorite

Sodium hypochlorite (NaOCl) is an oxidising agent that splits off and releases oxygen (O). This free oxygen damages bacterial, viral and fungal cell membranes and increases their permeability. The membrane can no longer withstand the osmotic pressure and the micro-organism is inactivated.^{1,3,4}

After oxygen is split off from the sodium hypochlorite, the substance reverts to its natural state of water and salt.⁴

Sodium hypochlorite is also produced naturally in the body by lysosomes to defend against micro-organisms and is an important part of phagocytosis in the body's immune defence mechanisms. But the concentration of "active chlorine" produced is so low that human tissues are not damaged.³

ECA technology

Electrochemical activation (ECA) involves passing an aqueous mineral salt solution through several electrolysis cells. ECA technology represents the further development and optimisation of membrane electrolysis for use in the field of medicine.

The solutions have particular physicochemical and catalytic properties and are well-established in the decontamination and irrigation of wounds and in keeping wounds moist.

Stable and very well-tolerated solutions are produced from natural starting materials such as water and mineral salts.

Article description	Content	REF	PZN
Wound spray gel	1 x 75ml	017073	11869882
Wound spray	1 x 75ml	017043	11869899
Wound irrigation solution	1 x 250ml	017025	11869876

Manufacturer:



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