

**Non-alcoholic disinfectant and cleaning of
surfaces**
Nova Surf



▪ **Description**

- Nova Surf is an effective one-step solution to cleaning and disinfecting. Formulated with patented hydrogen peroxide technology that kills microorganisms quickly on a broad range of surfaces.
- A ready - to - use disinfectant based on hydrogen peroxide (3%), a mixture of QAC in the composition.
- Hydrogen Peroxide Disinfecting Cleaner Nova Surf disinfects and cleans surfaces quickly while killing germs and viruses. Hydrogen Peroxide is of the next generation of disinfection as it is recognized as one of the safest and most effective disinfecting ingredients available on the market.
- Use this disinfecting cleaner on a broad range of surfaces, both hard and soft, such as high-touch spots like water fountains, doorknobs, handles, handrails, mattresses, desks, tables, countertops, curtains, and more. Hydrogen Peroxide Disinfecting Cleaner Nova Surf has no harsh fumes or bleach. Use sites: Day care centers, schools, colleges, universities, commercial kitchens, gyms, health clubs, locker rooms, lodging establishments, military installations, office buildings, play areas, public restrooms, restaurants, recreational facilities, retail businesses, sports arenas, transportation terminals.
- High material compatibility including sensitive electronics and textiles.
- Fast and last acting agent: exposure time 30 min and persistent antimicrobial activity for up to four hours after contact.

▪ **Advantages**

- Effective against a variety of microorganisms
- No respiratory allergies
- Creates a pleasant fragrant and a sense of freshness in the ambient air
- Applicable in all office, hospital and home environments
- persistent action
- Does not cause microbial resistance
- Using the synergistic effect of two types of biocide to increase effectiveness
- No need for rinsing

▪ **Mechanism of antimicrobial action**

Nova surf consists of two disinfecting agents that increases the effectiveness with a synergistic effect. solution that contains 3 percent hydrogen peroxide dissolved in water.

Hydrogen peroxide is a very strong oxidant and the resulting hydroxyl radical kills microorganisms by attacking membrane lipids, DNA and other vital cell components. Benzalkonium chloride is a surfactant with high antimicrobial properties. Its antimicrobial action is due to the disruption of intermolecular interactions. It can also cause the lipid layers of cell membranes to separate, which compromises the control of cell permeability and causes cell contents to leak. Other biomolecular complexes within the microorganism cell can also be degraded. It also makes it possible to dissolve organic tissues (blood, fat and protein) in the Nova Surf by reducing surface tension.

This formulation is strong enough to kill harmful microorganisms, including bacteria, viruses, fungi, and spores. **it also has the ability to destroy SARS-CoV-2, the new coronavirus (Ref. Medically reviewed by Deborah Weatherspoon, Ph.D., R.N., CRNA — Written by Carly Vandergrindt on August 20, 2020).**

Quaternary ammonium compounds (QACs) are a group of cationic surfactants widely used in household, agricultural, clinical and industrial products. QACs are surface active organic compounds containing at least one long hydrocarbon substituent attached covalently to a positively charged quaternary nitrogen atom .

The other substituents can be alkyl, aromatic, ether or ester groups.

Owing to the varied structures and a wide span of hydrophilic–lipophilic balance QACs are extensively used as emulsifiers, dispersants, fabric softeners, cosmetic ingredients and phase transfer catalysts, gene delivery agents, antimicrobial and anticorrosion agents.

Among a large number of cationic surfactants, examples of which are shown in Figure 1, benzalkonium chlorides 3 deserve the special attention due to their unique biocidal properties

They were presented for the first time as antimicrobial agents by Domagk in 1935. Nowadays, they are widely used as disinfectants and antiseptics, as well as preservatives for ophthalmic, nasal and inhalational drugs. They are also active substances in medicines for throat and mouth infections.

The mechanism of their biocidal action toward most bacteria, fungi and algae is based on adsorption of the alkylammonium cation on the bacterial cell surface, diffusion through the cell wall and then binding and disruption of cytoplasmatic membrane. Damage to the membrane results in a release of potassium ions and other cytoplasmatic constituents, finally leading to the death of the cell.

Phsicochemical properties

No.	Parameters	Specification
1	Appearance of solution	Clear and colorless liquid
2	pH	4-5
3	Density	0.9-1.1
4	Odor	Weak smell of pine
5	Solubility	It is soluble in water in any amount

▪ **Compositions**

- Hydrogen Peroxide
- Benzalkonium Chloride
- Essence
- Purified water

▪ **Instruction for use**

- Apply the product directly to the skin or by a swab, rubbing the area to be treated with circular movements. Let it dry for minimum 3 minutes.

▪ **Warnings and Precautions**

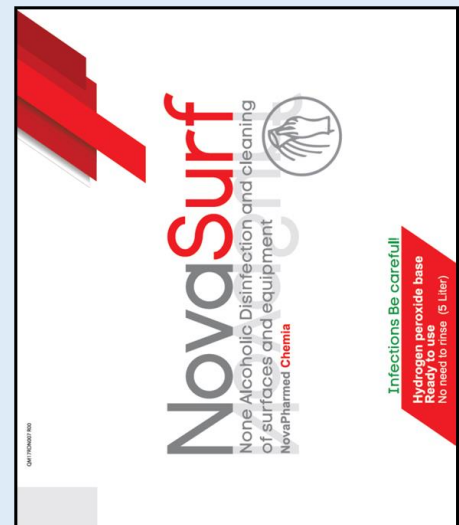
- Inspect the container before use.
- The solution should be clear and without any suspended particles.
- Wearing gloves and masks is recommended during the use of Nova Surf.
- Keep away from the face when opening the cap.
- Keep out of reach of children.
- In case of accidental contact to eyes and skin immediately plenty of water and see a doctor if needed.
- In case of accidental ingestion, drink plenty of water immediately and see a doctor.
- This solution is not recommended for brass, iron, cast iron, copper and aluminum surfaces.
- In closed containers, store at 5 to 35 ° C away from direct sunlight

▪ **Packaging**

5L + 750 ml Empty extra Container

▪ **Shelf –life**

18 months from manufactured date



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