

HydroSal™ Natural Antiseptic (HS NAS)

Provides long-lasting protection from microbes using alcohol-free, natural plant extracts with proven antiseptic and antifungal properties.

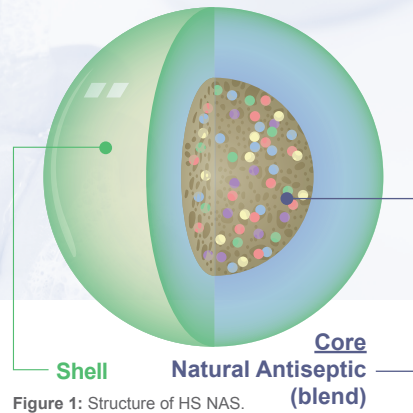



Figure 1: Structure of HS NAS.

HS NAS incorporates a complex of plant extracts into a single system at optimized levels. It allows for protection from microbes when it's needed the most, in wet environments.

| UNIQUE FEATURES | HOW THE TECHNOLOGY HELPS YOU |  <p>HS NAS raw</p> |
|--|--|--|
| <ol style="list-style-type: none"> PROVIDES LONG-LASTING PROTECTION through surface adhesion. WATER-TRIGGERED BURST Provides extra protection where it is needed most, on wet surfaces. EASY TO FORMULATE WITH Water-compatible system contains optimized blend of ingredients for broad spectrum inhibition, at low dosage. | <p>HydroSal™ is composed of a core with a shell coating. The system's core provides a reservoir for the functional ingredients and modulates the release of the plant extracts (Figure 1). The product is effective upon application to the skin or a surface.</p> | |



- Alcohol-free spray**
- Hand wash**
- Hand sanitizer**
- Anti-acne treatment complement wipe**

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IMPROVES RETENTION ON SKIN

HS NAS was applied to the arms of volunteers for a period of 6 hours. The remaining material was extracted with ethanol to determine how much of the NAS was retained (Figure 3).

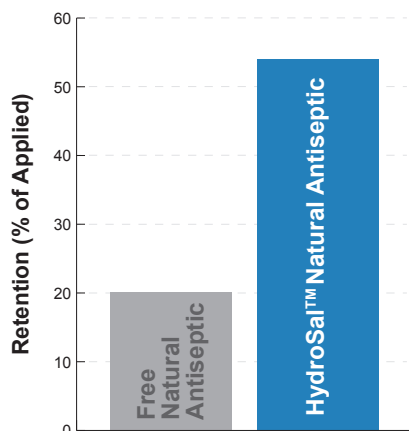


Figure 3: Comparison of NAS retained on skin of volunteers treated with spray at equivalent concentration of HS NAS vs. free NAS. Analyzed via HPLC.

EXTENDED EFFICACY ON SURFACES

A test was done in a high-traffic public restroom, with HS NAS and free NAS each put on a floor tile. After 48 hours of normal use, the free NAS and HS NAS areas were swabbed (Figure 4A & 4B). After swabbing, the free NAS and HS NAS areas were wiped for 10 seconds with a paper towel dampened with water, then swabbed again after 5 minutes (Figure 4C & 4D).

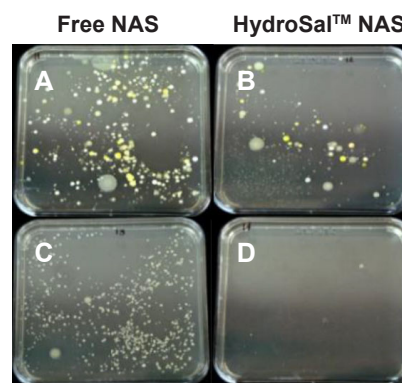


Figure 4: Cultures collected from bathroom surfaces tested at t=48 hours of normal use, one area with free NAS and another with HS NAS. The top row is before wetting, and the bottom row is after.

MINIMUM INHIBITORY CONCENTRATION

| Organism | HydroSal™ Natural Antiseptic (µl/ml) |
|-----------------------|--------------------------------------|
| S. aureus | 40.0 |
| E. coli | 40.0 |
| S. typhimurium | 40.0 |
| K. pneumoniae | 20.0 |
| M. smegmatis | 10.0 |
| C. albicans | 10.0 |
| A. niger | 10.0 |
| MIC for all organisms | 9.1 |

Table 1: Minimum Inhibitory Concentration (MIC) of HS NAS for various microorganisms.

TECHNICAL DATA

| | |
|---------------------|---|
| Appearance @ 20°C | Opaque paste |
| Applications | Skin care products such as creams and lotions |
| Color | White to off-white |
| Odor | Characteristic |
| pH (1 % solution) | 6.5 ± 1.0 |
| Shelf Life (months) | 18 |
| Usage Level (wt%) | 2.5-10% |
| Storage (°C) | Closed container at 12-32° |

FORMULATION

| Ingredients | (W/W %) |
|------------------------------|---------|
| HydroSal™ Natural Antiseptic | 9 |
| SalScent™ | 2 |
| Salvona Pre-Mix S #5016 | 10 |
| DI Water | 78 |
| Preservative | 1 |