

VETERINARIAN RECOMMENDED



ONLY animal healthcare products formulated with the original and patented Microcyn® Technology!

No alcohol, steroids or antibiotics

Safe and non-toxic



MicrocynAH[®] vs. HOCl Competitors

	MicrocynAH [®] ANIMAL HEALTH	Other HOCl Products
The only animal healthcare products to be formulated with the original and patented Microcyn [®] Technology	✓	✗
Backed by 53 patents with 92 pending	✓	✗
Competitively priced	✓	✗
40-plus clinical studies and 15 FDA clearances	✓	✗
Highly stable with up to 36 months shelf life	✓	✗
Wound care liquids do not contain bleach (sodium hypochlorite)	✓	✗
Hot spot and anti-itch formulations exclusively with the skin protectant, dimethicone.	✓	✗
Easily applied thin spray gel	✓	✗
Safe for use on all animals of all ages and species	✓	✗
No dilution or rinsing required	✓	✓
Steroid-free and antibiotic-free	✓	✓
No alcohol	✓	✓



Unmatched Product Stability

The instability of hypochlorous acid is the biggest challenge to producing liquid and gel products which remain effective over their entire shelf lives. While it is relatively simple to produce a hypochlorous acid solution, it is quite difficult to slow its degradation. Sonoma maximizes hypochlorous acid stability through the unique chemistry of its Microcyn[®] Technology. Hypochlorous acid is also very reactive with bottles, caps and finger sprays. As a result, Sonoma goes to great lengths to assure that the chemistries of the container/closure systems used with our products limit product degradation. Shelf life dating is set through FDA approved techniques* involving temperature- and humidity-controlled chambers. Product effectiveness is verified on all our technologies at the end of shelf life through Antimicrobial Effectiveness Testing (United States Pharmacopoeia Section 51). The intrinsic ability to maintain effective levels of hypochlorous acid is what separates MicrocynAH[®] products from other hypochlorous acid products on the market.

*ICH Harmonized Tripartite Guideline: Stability Testing of New Drug Substances and Products Q1A (R2)

MicrocynAH[®] Toxicity Study

Sonoma has obtained 15 clearances from the U.S. Food and Drug Administration for Microcyn[®] Technology products. These liquids and gels are sold as medical devices under Section 510(k) of the Federal Food, Drug, and Cosmetics Act. Outside the United States these products are sold with a European Conformity marking (known as Conformance Européenne or CE) covering 25 products. In order to obtain these clearances, each product undergoes rigorous safety and efficacy testing. For example, the liquid wound and skin care formulation underwent the following safety tests:

Safety Study

Cytotoxicity (ISO 10993-05)

Systemic Toxicity: Direct Systemic
(ISO 10993-11)

Irritation and Delayed Type Hypersensitivity
(ISO 10993-10):
Primary Ocular Irritation

Irritation and Delayed Type Hypersensitivity
(ISO 10993-10):
Direct Intracutaneous Injection Test

Irritation and Delayed Type Hypersensitivity
(ISO 10993-10):
Direct Buehler Sensitization Test

Results Summary

No biological reactivity (Grade 0) observed in the L929 cells at 48 hours post exposure.

Negative—Test article did not induce a significantly greater biological reaction than the control.

No signs of irritation were noted after 72 hours in any of the test or control eyes of any of the animals.

Negative—Test article did not induce a significantly greater biological reaction than the control. The difference on overall mean score between the test article and control article was 0.

The test article is not considered to be a skin sensitizer since none of the test animals exhibited skin reaction scores at the challenge exposure following an induction phase.



MicrocynAH[®] Microbial Inhibition

MicrocynAH[®] products have at their foundation a proprietary and highly shelf-stable hypochlorous acid solution called Microcyn[®] Technology, which is used in the cleaning, irrigation and debridement of wounds, burns, cuts, rashes, biofilms and abrasions as well as the irrigation and cleansing of eyes (with intact cornea) and outer ears. At the same time, it is non-toxic, non-irritating and non-sensitizing. In-vitro testing of the Microcyn[®] Technology demonstrates microbial inhibition activity for a broad range of microorganisms:

Preservative Testing - Successfully meets USP <51> Category 1 Criteria.

Organisms	Result Day 7	Result Day 14	Result Day 28
<i>P. aeruginosa</i> ATCC 9027	>1 log reduction from the initial calculated count	> 3.0 log reduction from the initial calculated count	No increase from Day 14
<i>E. coli</i> ATCC 8739			
<i>S. aureus</i> ATCC 6538			
<i>C. albicans</i> ATCC 10231	No increase from the initial calculated count	No increase from the initial calculated count	No increase from the initial calculated count
<i>A. niger</i> ATCC 16404			

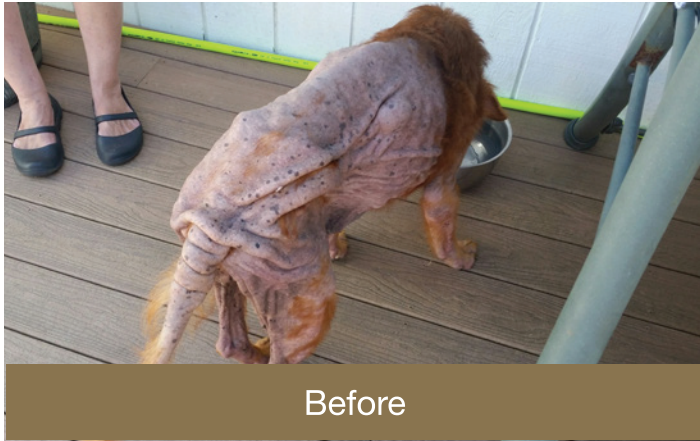
Preservative Time Kill Testing

Name of Organism	Log Reduction (30 sec.)	Time to Kill	Percent Reduction
<i>Acinetobacter baumannii</i>	6.3692	30 seconds	99.9999%
<i>Bacteroides fragilis</i>	7.6435	30 seconds	99.9999%
<i>Candida albicans</i>	6.3345	30 seconds	99.9999%
<i>Enterobacter aerogenes</i>	6.0881	30 seconds	99.9999%
<i>Enterococcus faecalis-VRE</i>	6.3646	30 seconds	99.9999%
<i>Enterococcus faecium-VRE MDR</i>	6.5119	30 seconds	99.9999%
<i>Escherichia coli</i>	5.6990	30 seconds	99.9998%
<i>Haemophilus influenzae</i>	5.1775	30 seconds	99.9993%
<i>Klebsiella oxytoca-MDR</i>	6.0492	30 seconds	99.9999%
<i>Klebsiella pneumoniae</i>	6.1430	30 seconds	99.9999%
<i>Micrococcus luteus</i>	5.8420	30 seconds	99.9999%
<i>Proteus mirabilis</i>	6.2028	30 seconds	99.9999%
<i>Pseudomonas aeruginosa</i>	5.8096	30 seconds	99.9998%
<i>Serratia marcescens</i>	5.9978	30 seconds	99.9999%
<i>Staphylococcus aureus-MRSA</i>	6.3454	30 seconds	99.9999%
<i>Staphylococcus aureus</i>	6.2266	30 seconds	99.9999%
<i>Staphylococcus epidermidis</i>	6.0233	30 seconds	99.9999%
<i>Staphylococcus haemolyticus</i>	5.9112	30 seconds	99.9999%
<i>Staphylococcus hominis</i>	5.4456	30 seconds	99.9996%
<i>Staphylococcus saprophyticus</i>	5.9590	30 seconds	99.9999%
<i>Streptococcus pyogenes</i>	6.7160	30 seconds	99.9999%

Note: The solution contains sodium hypochlorite and hypochlorous acid as preservatives to reduce/ prevent the growth of microorganisms within the solution.

REAL Results From REAL Users

Dog with Infections, Flea Infestation and Extensive Hair Loss



Before



After 3.5 Months

Information displayed is provided by our customers. MicrocynAH® is a great addition to any wound care regimen. Always consult with a veterinarian for systemic conditions.

Owner Name:	Shell-ey Van Cleave
Patient Type & Name:	Golden Retriever - Hydee
Wound/Ailment:	In August 2015, Port Angeles Pet Posse (a volunteer rescue organization) was contacted by a concerned citizen who had found Hydee, a beautiful golden retriever who had numerous medical problems associated with infections, flea infestation, malnourishment, extensive hair loss.
MicrocynAH® Product:	MicrocynAH® Wound & Skin Care - Liquid
Application: (initial usage, current usage, protocol)	Applied MicrocynAH® directly to infected skin over 3 1/2 months.
Healing Period:	3 1/2 months. Improvement was noticeable within days. Treatment was continued to help her skin heal. At this date her hair has grown back and she is beautiful again.

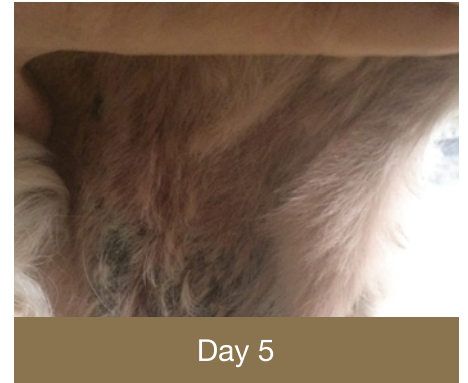
IMMEDIATE ACTING, ONE-STEP WOUND & SKIN CARE

MicrocynAH® Wound and Skin Care products are innovative topical solutions for the care of wounds and irritations. MicrocynAH® is non-toxic, steroid-free and antibiotic-free and will not sting when applied. There is no rinsing or staining after use. MicrocynAH® is intended for OTC management of skin abrasions, lacerations, minor irritations, cuts and intact skin. Aids in the healing process by debriding and cleaning wounds, cuts and lacerations.

Wound Care Applications:

- ✓ Acute and chronic wounds
- ✓ Partial- and full-thickness wounds
- ✓ First- and second-degree burns
- ✓ Post-surgical wounds
- ✓ Skin ulcerations
- ✓ Wound irrigation and debridement
- ✓ Reduction of wound odor
- ✓ Lacerations and cuts

Dog with Hot Spots Around the Neck



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Owner Name:	Jeannie Ng
Patient Type & Name:	Tatra Sheep Dog - Glaska
Wound/Ailment:	Our dog had an extremely bad hot spot around her neck. It spread from a 3cm spot to the whole bottom neck within 24 hours. It was oozing fluid, smelly, and completely inflamed. It was a very difficult spot because she has a lot of excess skin on her neck. The itch was unbearable, she paced with her head lopsided and panted the whole day and couldn't sleep. The antibiotics provided by the vet did not work on the itch. She also received class IV laser therapy which did help but it also did not stop the occasional extreme itch attack completely. This led to scratching that caused the wound to get bigger.
MicrocynAH® Product:	MicrocynAH® Wound & Skin Care - Liquid
Application: (initial usage, current usage, protocol)	Our dog has an irrational fear to spray bottles - the moment she sees a spray bottle, she runs away. A day after we used MicrocynAH (we used it every time when the itch started - about 12 times in 24 hours frame), Glaska not only allowed me to spray this on her neck, she would lift her neck - after she sniffed at it to make sure that it was the MicrocynAH!
Healing Period:	Glaska's hot spots healed completely in 7 days.

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Dermatological Conditions:

- ✔ Hot spots
- ✔ Persistent itching
- ✔ Allergy sites
- ✔ Fecal or urine contact skin irritations

Eye and Ear Indications:

- ✔ Irrigate and cleanse eyes and outer ears
- ✔ Management of pink eye
- ✔ Eye abrasions and irritation