### Solutions that work naturally

**Consumer product portfolio** 





#### **A Relentless Passion for Healing**

We are Sonoma. We change lives for the better. And by changing lives for the better, we better ourselves.

Sonoma Pharmaceuticals is a global healthcare leader developing and producing stabilized hypochlorous acid (HOCI) products for a wide range of applications, including dermatological conditions, wound care, animal health care, eye care, nasal care and oral care.

**11** 150+

**Clinical Papers** 

**♣** 50+

Countries we ship to

**≠** 40+

Partners around the World

**№**80+

Regulatory approvals

**№** 60+

Patents obtained

**\*** 10

Indications

Changing lives for the better is more than a business, it is a calling. The restorative power of our work helps wounds heal, diminishes discomfort, and provides the relief that countless patients have been longing for...from alleviating itch and pain to saving limbs - all while reintroducing people to a state of wellness and confidence.

We continue to innovate and refuse to accept the limitations of the status quo, because the more paths to healing we discover, the better we are able to improve patient outcomes around the globe.



# Microcyn® Technology

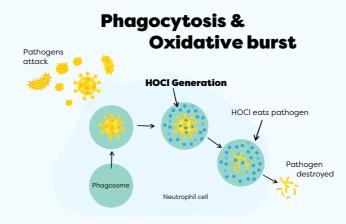
# Natural body ingredients that boost your immune system

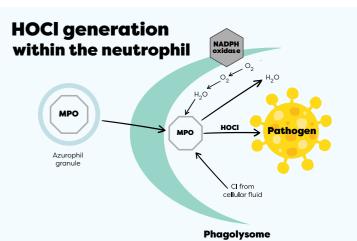


The Microcyn®-based family of products are formulated from an electrically charged oxychlorine compound of small molecules. The main component, **hypochlorous acid (HOCI)**, is naturally produced as part of our immune system during the phagocytosis. During the activation of neutrophils, 'respiratory bursts' generate hydrogen peroxide (H2O2) and the activated granule enzyme myeloperoxidase converts H2O2 into hypochlorous acid (HOCI).

When neutrophils encounter bacteria or other pathogens, the neutrophils engulfs it, generate HOCl and instantly destroying the microorganism. This process is called the "oxidative burst".

- Unique patent protected cutting-edge manufacturing process
- Tightly controlled and unmatched chemistry resulting in unmatched stability
- Based on one of the body's most important molecules: Hypochlorous acid (HOCI)
- The first revolutionary stable patented HOCI formulation in a bottle
- Evidence based stabile, safe & effective patented technology





Microcyn® Technology has **Triple Mode of Action** and profound impact on infection, inflammation and scarring:

- Powerful anti-microbial activity (also breaks down Biofilm)
- **2.** Anti-allergic & anti-inflammatory properties (including anti-pruritic activity)
- **3.** Increased blood/oxygen flow to wound that stimulates wound healing

#### In addition

- No mutations or resistance
- Unparalleled safety No drug-to-drug interaction or contraindications
- Million of patients treated worldwide without serious adverse events.

# Sonoma PHARMACEUTICALS

#### **Stabilized Hypochlorous Acid**

The science of hypochlorous acid is simultaneously deceptively simple and highly complex. When developed intelligently and with scientific rigor, hypochlorous acid can be rendered safe, stable and consistent in an advanced wound care formulation. This is the foundation for our patented Microcyn® technology. Under development and continuous refinement for almost 20 years, Microcyn® Technology is the original and first revolutionary stable patented hypochlorous acid formulation in a bottle that was introduced into Europe and the U.S. advanced wound care markets.

**HOCI is highly active against bacterial, viral, and fungal pathogens**. HOCI also been shown to have significant activity against biofilms, spore-forming and non-spore forming bacteria.

# Microcyn® Technology

Microbial Load reduction & Infection control

# HOCI Time Kill in Solution 99.999% REDUCTION OR HIGHER IN

netobacter baumannii	7.0488
teroides fragilis	3.3565
dida albicans	6.46991
nebacterium diphtherieae	5.2778
tridium difficile (spores)	4.6085
erobacter aerogenes	6.7200
erococcus faecalis-VRE MDR	5.60851
nerichia coli	6.5272
mophilus influenzae	5.4107
osiella oxytoca	6.7810
siella pneumoniae ozaenae	6.8086
assezia furfur	5.3953

Micrococcus yunnanensis
Propionibacterium acnes
Proteus mirabilis
Pseudomonas aeruginosa
Serratio marcescens
Staphylococcus aureus
Staphylococcus aureus
Trichophyton mentogrophytes
Vibrio vulnificus

5.6137 Log 5.2967 Log 6.7477 Log 6.5867 Log 6.5811 Log 6.7032 Log 6.5008 Log 6.4214 Log 4.6752 Log 5.1888 Log

#### **IN-VITRO MICROBIOCIDAL PERFORMANCE STUDIES**

Category	M icroorga nism	Standard / method	Type	Exposure time [minutes]	Microbial load reduction
Bactericidal	Pseudomonas aeruginosa	AOAC Use Dilution	Carrier	10	> 4.7 log
		BS EN 13727:1999	Suspension	15	> 5.4 log
	Staphylococcus aureus	AOAC Use Dilution	Carrier	10	> 4.7 log
		BS EN 13727:1999	Suspension	15	> 5.1 log
	Salmonella choleraesuis	AOAC Use Dilution	Carrier	10	> 5.7 log
	Enterococcus hirae	BS EN 13727:1999	Suspension	15	> 5 log
	Escherichia coli	AOAC Use Dilution	Carrier	1	> 5 log
Bactericidal (resistant strains)	Methiciline resistant <i>Staphylococcus</i> aureus (MRSA)	AOAC Use Dilution	Carrier	10	> 5.9 log
	Vancomycin resistant <i>Enterococcus</i> faecalis (VRE)	AOAC Use Dilution	Carrier	10	> 6.1 log
Tuberculocidal	Mycobacterium bovis	Tuberculocidal Suspension	Suspension	5	> 6.4 log
Virucidal	Human Immunodeficiency Virus type I (HIV-I)	acc. U.S. EPA guidelines	Carrier	10	> 3.7 log
Fungicidal	Trichophyton mentagrophytes	Fungicidal Use Dilution	Carrier	10	> 6.3 log
Sporicidal	Bacillus atrophaeus	BS EN 14347:2002	Suspension	15	> 6.5 log

There are no known drug interactions or contraindications with Microcyn®-based products. **Independent laboratory tests** have demonstrated the technology to be non-irritating, non-sensitizing and non-toxic.

#### **IN-VITRO MICROBIOCIDAL PERFORMANCE STUDIES**

Category	Sub-category	Standard / method	Result
Toxicity	Genotoxicity	ISO 10993-3:2003	Pass
	Cytotoxicity	ISO 10993-5:1999	Pass
	Acute oral toxicity	ISO 10993-11:1996	Pass
	Acute dermal toxicity	ISO 10993-11:1996	Pass
	Acute inhalation toxicity	ISO 10993-11:1996	Pass
Sensizitation	Dermal sensitization	ISO 10993-10:2002	Pass
Irritation	Skin irritation	ISO 10993-10:2002	Pass
	Ocular irritation	ISO 10993-10:2002	Pass



# Microcyn® Technology

# Proven Evidence Based & Patented Technology supported by more than 30 clinical papers



Country	Clinical Paper Title	Source	Subject Focus	Control Product
USA	Super-Oxidized Dermacyn in Lower-Extremity Wounds	Wounds (IWJ)	DFU	n.a.
IT	Super-Oxidized Solution (SOS) Therapy for Infected Diabetic Foot Ulcers	Wounds (IWJ)	DFU	P.I.
USA	The Science behind stable, Super-Oxidized water, Exploring the various applications of SOW	Wounds (IWJ)	DFU, LU, PU, Burns	
USA	Superoxidized Water Improves Wound Care Outcomes in Diabetic Patients	DMCT	DFU, burns, other	n.a.
USA	Nonsurgical Management of Chronic Wounds in Patients with Diabetes	JVU	DFU, LU, PU, Burns	n.a.
IT	Super-Oxidized Solution (SOS) Therapy for Infected Diabetic Foot Ulcers	IWJ, AAWC	DFU	P.I.
IT	Treatment of Diabetic Foot Ulcer: An Overview Strategies for Clinical Approach	CDR	DFU	
IT	Clinical Outcome of Wide Postsurgical lesions in the Infected Diabetic Foot Managed with 2 different local treatment regimes compared using Quasi Experimental Study Design: A preliminary comm.	LEW	DFU	P.I.
IT	A Randomized Controlled Trial to examine the efficacy and safety of a new Super-Oxidized Solution for the management of wide Postsurgical lesions of the Diabetic Foot	IJLEW	DFU	P.I.
ES	Super-Oxidized Solution (Dermacyn Wound Care) as Adjuvant Treatment in the Postoperative Management of Complicated Diabetic Foot Osteomyelitis	IJLEW	Diabetic Foot Osteomyelitis	P.I.
USA	Dermacyn: A novel superoxidized water facilitates wound healing. Early experience in lower extremity wounds and limb salvage	SAWC	DFU	TWC
IT	Use of Dermacyn, a new antiseptic agent, for the local treatment of Diabetic Foot Ulcers	EWMA	DFU	P.I.
IT	Clinical Outcome of Wide Postsurgical lesions in the Infected Diabetic Foot Managed with 2 different local treatment regimes compared using Quasi Experimental Study Design: A preliminary comm.	LEW	DFU	P.I.
IT	Clinical Results about an antimicrobial solution in the treatment of infected chronic wounds	EWMA	Chronic Wounds	P.I.

DFU = Diabetic Foot Ulcer LU = Leg Ulcers PU - Pressure Ulcers TWC = Traditional Wound Care PI = Providone Iodine







#### State of the Art Manufacturing Facility

- 17 FDA Clearances
- 29 CE Mark Notified Body Approvals
- ISO 9001 and 13484
- MOH, KFDA, SFDA, KSA, TGA, EN, Biocide and many other national listing/approvals
- Shipping to 54 countries
- First Rate Logistics
- · High Quality
- Flexibility of SKU's
- Capacity to make millions of units each month

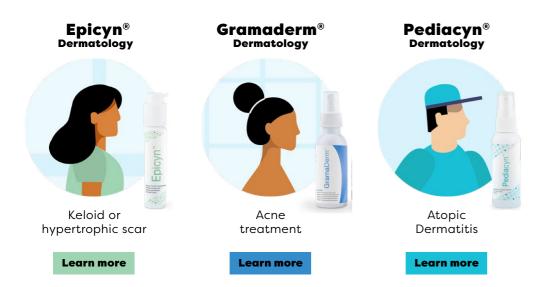




#### Solutions that work naturally

for every body

The Microcyn®-based family of products have helped millions of patients since its launch in 2005. No matter your age or skin type you can find the right solution to assist your body in reducing infection and inflammation naturally.





## **Epicyn**<sup>®</sup> **Scar treatment**

- Stimulates postprocedure wound healing
- Can be used in old and new scars
- Reduces itch, redness and pain
- Silicone based
- **pH Neutral**









#### **Natural ingredients that** boost your immune system

Epicyn® with patented technology for proactive, post-procedure wound care and scar management treatment is intended for the prevention of surgical site infections and the management and reduction of new and existing hypertrophic and keloid scars.

Epicyn® forms a protective barrier against physical, chemical and microbial invasion of the scar. It softens, flattens and reduces redness and relieves scar-associated itch and pain sensation.

Ideal for old and new scars from surgeries and injuries. It helps reduce the appearance of old and new scars. With consistent use, even existent scars, can become flatter, smoother, less visible and closer to your skin's natural color and texture.

Epicyn® is odorless and transparent. It is suitable for all ages and skin types, including children, newborns and those with sensitive skin. It can be applied immediately after surgical procedures / suturing to assist in the prevention of site infections.

#### Are you worried about the look of a scar?



Whenever the skin on your body suffers from trauma of some sort, a scar is formed as a way to protect the wound and surrounding areas from the risk of further infection.



If you have undergone recent surgery Epicyn® can be used to prevent the appearance of a keloid or hypertrofic



Can be applied immediately after wound appearance or surgery / suturing. Recommended treatment is 60-90 days.



### **Gramaderm®**

#### **Acne treatment**

- Helps to restore the skin's natural flora
- Assists in reducing infection and inflammation
- pH Neutral
- Chemical free



# Pediacyn<sup>®</sup> Atopic Dermatitis

- Reduces redness, itch, and pain
- Can be used during dry and wet phases
- Silicone based
- pH Neutral



# Natural ingredients that boost your immune system

Gramaderm® solution & hydrogel with patented technology is intended to assist in the treatment of topical mild to moderate acne. It is easy to use and **suitable for daily use and all skin types.** Men and women, adults or teens, regardless of age. For any and all types of acne, including that on your face, back, chest or anywhere else on your body.

Gramaderm® assists in restoring the skin's natural flora. Gramaderm® solution & hydrogel does not contain any harmful chemicals and helps reduce redness. Safe, easy, painless and free of benzoyl peroxide, salicylic acid, alcohol, parabens, antibiotics or steroids.

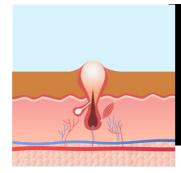
An efficient solution for the treatment of pimples, blackheads, whiteheads or even just leftover redness from an old blemish that isn't fading quickly enough.

Gramaderm® Solution & hydrogel can be used during long periods of time without causing side-effects.

### Do you feel like the acne is stealing the spotlight?



Acne can feel so distressing that you just want to hide your face from the world. Early treatment can prevent emotional distress and acne scars.



Acne is the result of clogged pores. It can be either non-inflammatory or inflammatory.



Wash the affected area with water and soap and let the skin dry. Clean with Gramaderm® Solution and allow it to act for 5 minutes. Let skin dry and do not wash off.

# Natural ingredients that boost your immune system

Pediacyn® relieves Atopic Dermatitis-associated redness, itch sensation and pain and does not contain any harmful chemicals. It is well tolerated and can be used during dry- and wet phases of Atopic Dermatitis and during long periods of time without causing side-effects. People often refer to Atopic dermatitis as Eczema. However, it's actually an umbrella term covering dermatitis conditions caused by different allergens and triggering substances. Aside from atopic dermatitis, what you'll find most commonly are contact and seborrheic dermatitis.

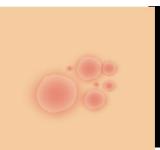
Pediacyn® is a **clinically proven safe and non-steroidal treatment** and is safe for children and babies. You simply cover the affected area with a thin layer of Pediacyn® and massage gently until it is evenly distributed over the skin. Let the skin dry and do not wash off the atopic dermatitis barrier cream. It can be applied 3 times daily (or as needed).

In case of dry skin; combine with any preferred atopic dermatitis moisturizer prior or after treatment with Pediacyn®

### Is your skin suffering from Atopic Dermatitis or Eczema?



When you suffer this long-term skin concern, there are certain periods when the rash alleviates, but it always come back.



Sometimes the discomfort generated by the rash can distract you from your daily activities.



In addition to your prescribed treatment you can use Pediacyn® hydrogel as an adjuvant to assist reducing the redness, itch and pain caused by the rash.





# Ocudox<sup>®</sup> Eyelid solution

- For treatment of Blepharitis
- For daily hygiene of eyelids and eyelashes
- May be recommended to contact lens wearers
- Alcohol free
- pH Neutral



# Natural ingredients that boost your immune system

Ocudox® with patented technology is a solution intended to support in the treatment of Blepharitis and the daily hygiene of eyelids and eyelashes. Ocudox® cleans the eye lids, lashes and periocular skin and assists in removing debris and microorganisms which can cause irritation and ocular surface disease.

The solution does not contain any harmful chemicals and there are no preparation steps prior to application and no need to rinse after use.

Ocudox® is non-irritating, non-sensitizing, no stinging, no burning and has no contraindications. Ocudox may be recommended to contact lens wearers.

### Do you constantly look like you have been crying?



Throughout the day, we're exposed to varying amounts of sun, wind, and dust. Our eyes get fatigued adapting to all these changes and can become dry



The eye responds to irritation with an eyeitching reflex. This results in discharge which mixed with tiny dust particles and debris causes encrustation.



Use Ocudox® twice a day to maintain the eye lids, lashes and periocular skin clean and reduce irritation.





#### www.sonomapharma.eu

Sonoma Pharmaceuticals Netherlands B.V.
(Formerly Oculus Innovative Sciences Netherlands B.V.)
Boven de Wolfskuil 3, C30-C32
6049 LX Herten/Roermond
The Netherlands

Phone: +31 (0)475 318 666 Fax: +31 (0)475 318 342 NASDAQ: SNOA



