

# COSILVER

## NANO 400



## INSTRUCTION MANUAL

Congratulations on purchasing the **COSILVER NANO 400**. Now you can make your own colloidal silver health supplement for yourself, your family, friends and pets.

The **COSILVER NANO 400** produces colloidal silver that contains both silver ions and colloidal nano sized particles of metallic silver. This gives the maximum benefit when used internally or externally.

## INDEX

### 1.0 Important Safety warnings

#### 1.1 Important Notice and Disclaimer

### 2.0 Quickstart Guide

#### 2.1 How Does it Work

#### 2.2 Make Your First Batch

### 3.0 Full Product Details

#### 3.1 Packaging and Contents

#### 3.2 Wall Power Supply

#### 3.3 Generator Unit

#### 3.4 Pure Silver Rods

#### 3.5 Glass Process Container

#### 3.6 Spray Bottle

#### 3.7 Storage Bottle

### 4.0 Distilled Water Quality

### 5.0 Colloidal Silver Quality and Concentration

### 6.0 Dosages and Applications

#### 6.1 Treatment For Adults, Children.

#### 6.2 Treatment for Pets, Animals

### 7.0 Troubleshooting and Questions

### 8.0 Technical specification

### 9.0 Product Warranty

### 10.0 Contact details

REVISION	SUMMARY	DATE
3	Correct conversion time, add updates	05-03-2019
2	Cosilver Logo update	23-10-2017
1	Corrections	01-03-2016
0	Original document	25-04-2015

## 1.0) IMPORTANT SAFETY WARNINGS

### USING THE COSILVER NANO 400 GENERATOR

This product complies with international standards and when used as directed will not cause any injury or electrical shock hazard.

The wall power supply has a standard IEC Type C (CEE7/16) plug configuration. A local plug adapter may be required and is not included with this product.

- ◆ Always keep all equipment safe and out of reach of children.
- ◆ Do not modify or tamper with any part of the equipment.
- ◆ Do not use this product during electrical storms/lightning.
- ◆ Do not immerse the generator unit or wall power supply in any liquid.
- ◆ Never use domestic tap water to produce colloidal silver.
- ◆ Only use good quality distilled water with this product.
- ◆ Never add salt or pre-made colloidal silver or any other substance to the water.

### USING THE COSILVER COLLOIDAL SILVER

Colloidal silver made by the COSILVER generator is totally non toxic and has no side effects whatsoever, but is deadly to harmful bacteria. Colloidal silver is a perfectly safe complimentary supplement and has no influence the efficacy of any medicine or drug. Colloidal silver is environmentally friendly and completely non-hazardous.

#### 1.1) Important Notice and Disclaimer

This product is manufactured by Cove Developments CC registered in South Africa and is not medical equipment. The colloidal silver made by the product is not a registered medicine or drug and is considered to be a dietary supplement. Please consult an alternative medical practitioner for all health advice since the company employs no medical practitioner. All information given in this document originates from personal experience, scientific research and anecdotal comments and is not prescriptive, nor can the content be guaranteed, therefore all information should be read with caution. Readers should verify all information contained herein from other reliable sources. The Company and its employees disclaim responsibility and/or liability for any loss or hardship resulting from the use or application of any information or statement within this document.

## 2.0) QUICKSTART GUIDE

Please read all the instructions in this section. The Operating Procedure table will assist you to quickly become familiar with the product.

COSILVER NANO 400 Operating Procedure			
STEP	DESCRIPTION	PROCESS 	READY 
1	Fill the glass vessel to the line with pure distilled water	SWITCHED OFF	
2	Connect the power supply to the generator, place on the vessel and switch on at the wall.	FLASHING SLOWLY	FLASHING SLOWLY
3	Push "START" 	OFF	FLASHING QUICKLY
4	Process is underway and colloidal silver is being made	FLASHING SLOWLY	OFF
5	Process is complete and the colloidal silver is ready	OFF	ON
6	Switch off at the wall and disconnect the power supply	SWITCHED OFF	

The COSILVER NANO 400 is very simple to use and only requires a domestic power outlet and distilled water. Quality takes time and the product will take up to 12hrs or more to make your high quality colloidal silver.

### 2.1) How Does it Work

The glass vessel supplied is filled with distilled water. A very small but accurately controlled constant electrical current passes through the water from one pure silver electrode to the other. This electric current also changes direction at a low frequency. The current causes Silver ions and tiny silver nano particles to be deposited in the water.

### 2.2) Make Your First Batch

- a) Fill the glass container to the mark with pure distilled water.
- b) Wipe the two silver rod electrodes with a damp cloth.



- c) Connect the wall power supply to the generator.



- d) Place the generator on to the glass container.



- e) Switch on at the wall and the unit will enter standby mode. The red "PROCESS" and blue "READY" indicators will flash alternately to verify that power is present.



- f) Now gently depress the "START" button on the generator. The red "PROCESS" indicator will extinguish and the blue "READY" indicator will flash quicker and then the red "PROCESS" indicator will return to flashing slowly. Colloidal silver is now being made.



The generator will take twelve hours or more to complete the process. When the colloidal silver is ready, the flashing red "PROCESS" indicator will stay off and the blue "READY" indicator will come on again and stay on. The colloidal silver is now ready.



- g) Switch off at the wall and carefully remove the generator unit from the glass.

Your colloidal silver should be crystal clear. Sip a half-teaspoon and verify that it has a distinct metallic taste. Gently clean the electrode rods after each process.

### 3.0) FULL PRODUCT DETAILS

#### 3.1) Packaging and Contents

All items are supplied within a single package. The box and foam packaging can be re-used to store the product. Carefully open the package and check the contents. Inform your supplier of any transit damage.

The following items are supplied:

- ◆ 1 x Universal wall power supply ( 85 – 264Vac, 47 – 63Hz)
- ◆ 1 x Generator unit with 2 x silver rods
- ◆ 1 x 400ml (14fl oz) Glass process container
- ◆ 1 x 100ml (3.5fl oz) spray bottle
- ◆ 1 x 500ml (17.5fl oz) storage bottle
- ◆ 1 x Instruction manual and certificates



#### 3.2) Wall Power Supply (85-264Vac, 47-63Hz)

The wall power supply being double insulated complies with international standards. The universal two-pin plug is integral with the supply. If required, only use an approved power plug adapter with this power supply. The power supply converts the mains voltage to a regulated 24Vdc power source for the generator. Electricity consumption to make colloidal silver is extremely small and the power supply will give many years of service. Do not use any alternative power supply. When not in use, switch the power socket off and unplug the power supply.



#### 3.3) Generator Unit

The **COSILVER** generator contains electronic circuitry to produce high quality colloidal silver. The case is water resistant but must never be immersed in, or held under running water. Only wipe with a damp cloth and never use detergents or chemicals. The generator is completely automatic. Simply switch the wall power on and push the start button to initiate the process. The generator then converts distilled water into colloidal silver. The **COSILVER** generator then switches off at a preset concentration of silver.



#### 3.4) Pure Silver Rods

**COSILVER** electrode rods are directly supplied and certified from a registered precious metal refinery to ensure consistent silver purity of 0.999. Two solid silver electrodes that are 3mm in diameter (Approx. AWG 9) and 100mm (4.1") in working length are fitted to the generator. Do not apply excessive force to the rods. The rods will wear down over time but will last for many years with normal regular domestic use.

A blackish residue of silver oxide appears on both rods during production. Gently clean the rods after every production. Only use a dampened sponge, cloth or paper towel and no detergents, soap or chemicals. A non-metallic pot cleaner can also be gently used. Do not use any form of steel wool or other metal tool. The rods only have to be clean, not polished to shine. After many years of service, the electrode rods can be replaced. Consult your dealer for details.



#### 3.5) Glass Process Container

The clear glass container holds 400ml (14fl oz) when filled to the line. The electrodes are held parallel to the circular wall. The distances between the electrodes and the side and bottom of the container are fixed to ensure consistent production quality.



### 3.6) Spray Bottle

Colloidal silver should be stored in darkened glass containers and away from direct sunlight. The 100ml (3.5fl oz) spray bottle is very useful to ingest colloidal silver into the nose, throat and lungs. It has many other applications including spraying colloidal silver on to the skin and to sanitise kitchen worktops and door handles.



### 3.7) Storage Bottle

Colloidal silver should be stored in darkened glass containers and away from direct sunlight. The 500ml (17fl oz) bottle is used to store the colloidal silver. Additional storage bottles can be purchased from chemist shops and drug stores.



## 4.0) DISTILLED WATER QUALITY

Only distilled water can be used to make colloidal silver. Do not add salt or any other substance. Never introduce any contaminants whatsoever to your distilled water. Do not “seed” the distilled water with colloidal silver from a previous batch. No heating or stirring is required during production. Water purity is very important and it must not be ionised, oxygenated or contain added minerals.

The quality of distilled water is usually defined by its electrical conductivity in a unit called the Microsiemen ( $\mu\text{S}$ ) or ppm (Parts Per Million). Note that  $1\mu\text{S} = 1\text{ppm}$ . Totally pure water has a conductivity of  $0\mu\text{S}$  and would not conduct electricity. Distilled water with a stated conductivity of  $5\mu\text{S}$  or less is preferred for colloidal silver production. The **COSILVER** generator will still produce the same silver content in contaminated water but the efficacy may be reduced.

## 5.0) COLLOIDAL SILVER QUALITY AND CONCENTRATION

The total silver content in colloidal silver is usually stated in parts per million (ppm). A silver content of 1ppm represents 1mg of silver per 1litre of water. 1ppm therefore represents many billions of silver ions and nano particles.

The **COSILVER** NANO 400 produces colloidal silver that is crystal clear. This clarity confirms that only tiny silver nano particles and silver ions can be present. The generator will produce colloidal silver containing a silver content of 14ppm (Conductivity of  $14\mu\text{S}$ ). This value may vary slightly from 12 – 16ppm as the electrodes wear down over time. The quality of the colloidal silver produced depends on the following:

- ◆ The purity of the distilled water used
- ◆ The purity of the silver rod electrodes.
- ◆ The electrical current passing across the electrodes.

The user only needs to ensure the purity of the distilled water.

The **COSILVER** NANO 400 produces colloidal silver that consists of silver in two distinct forms these being silver ions and metallic silver particles. Both are so small that they are measured in “nm” (nanometres). Around 400,000 ions would fit across the diameter of a human hair. A colloid is defined as a liquid that contains suspended particles in the range of 1nm to 1000nm. A solution is defined as a liquid that contains particles that are smaller than 1nm.

The total amount of silver in the liquid is defined as the “silver concentration” as stated in ppm (parts per million) or uS (Microsiemen). Typically, 75-85% of the concentration consists of silver ions and 15-25% consist of silver particles.

A silver particle consists of a cluster of silver atoms. During the electrolysis process, ionisation breaks down the water molecules into hydrogen and negatively charged hydroxyl ions. These hydroxyl ions are non-metallic and bond to the atoms of the silver particles. A silver particle therefore has a negative electrical charge known as the zeta potential. Silver particles are non-soluble in water and can range in size from 5nm to 20nm. The COSILVER NANO 400 only produces silver particles in the very low nanometre range.

A silver ion is single atom of silver that has lost one negative electron from its outer orbit. The ion has a diameter of only 0.230nm. The missing negative electron causes the silver atom to maintain a positive electrical charge. A silver ion therefore has a positive electrical charge.

The negative hydroxyl ions and the positive silver ions would be expected to attract each other. This does not happen because water has a very high dielectric constant that greatly reduces the attractive forces.

## **6.0) DOSAGES AND APPLICATIONS**

COSILVER colloidal silver is completely safe to use externally and as directed when taken internally. Colloidal silver will not cause any pain or sting when applied to an open wound or to the eyes and will actually have a soothing affect. For external use on cuts, abrasions, skin infections, burns, boils, etc., the amount of colloidal silver applied is not critical. It can be dabbed on with a small pad, sprayed on or massaged into the skin. For warts, saturate a plaster or bandage with colloidal silver and apply. A tooth abscess can be treated by the regular massage of colloidal silver into the infected gum area.

In general terms, the challenge is how to best deliver colloidal silver to the infected area. While external application is simple, internal benefit is derived from holding under the tongue, swallowing recommended amounts, inhaling a spray or mist through the mouth/nose and enema absorption. Disposable syringes (no needles) are very useful and available through chemists and drug stores.

There are absolutely no side effects associated with the use of colloidal silver. Argyria, (a blue/grey discolouration of the skin) is an extremely rare condition that can occur through the ingestion of various silver compounds, mainly silver nitrates. It takes an awful lot of silver compound and self abuse to develop Argyria . No cases are recorded that resulted from ionic or colloidal silver. Let us remember that a poor outcome and side effects will result from the excessive abuse or exposure to virtually anything.

### **6.1 Treatment for Adults, Children**

#### **Pregnancy and colloidal silver.**

At this time, only anecdotal positive reports from taking colloidal silver are documented with no negative reports being observed. It is generally accepted that colloidal silver is perfectly safe to use during pregnancy. If you are unsure, please consult an alternative medicine practitioner or health professional.

When taken internally, we are guided by adapting the accepted standards and benchmarks reported by various credible institutions and individuals. The following dosage table is derived from the RfD (reference dose) published by the US Environmental Protection Agency.

Silver is a naturally occurring element and traces can exist in food, drinking water and all around. The recommended RfD for silver is 5 micrograms per kilogram of body mass per day.

The following table is based on half of the RfD to allow for the possible absorption of silver from other sources.

Dosage Table for the COSILVER 12 – 16ppm colloidal silver.

- ◆ The table only applies to COSILVER 12 – 16ppm colloidal silver.
- ◆ Regular Use Per Day – implies regular daily consumption.
- ◆ Short Term Per Day – implies high dosage for specific treatment and should be taken for no more than 10 days in any month.

Identify your body mass in kg or lb. Scan across the table to see the regular or short term daily dose of colloidal silver that can be taken internally.

RECOMMENDED DAILY LIMIT FOR INGESTION					
Body Mass		Regular Use Per Day		Short Term Per Day	
(kg)	(lb)	teaspoon	tablespoon	teaspoon	tablespoon
10	22	0.5	----	2.5	1.0
20	44	1	----	5.0	1.5
30	66	1.5	0.5	7.5	2.5
40	88	2.0	----	10.0	3.5
50	110	2.5	----	12.5	4.0
60	132	3.0	1.0	15.0	5.0
70	154	3.5	1.0	17.5	6.0
80	176	4.0	1.5	20.0	6.5
90	198	4.5	1.5	22.0	7.5
100	220	5.0	1.5	25.0	8.5
120	264	6.0	2.0	30.0	10.0
140	308	7.0	2.5	35.0	11.5
160	352	8.0	2.5	40.0	13.0
180	396	9.0	3.0	45.0	15.0
200	440	10.0	3.5	50.0	16.5

Colloidal silver is reported to kill more than six hundred and fifty different pathogens within a few minutes of contact. Some examples of common ailments are given in the following table.

A Selection of Common Conditions That Can Be Alleviated or Eliminated by Ionic/Colloidal Silver			
Acne	Dermatitis	Lupus	Shingles
Allergies	Diabetes	Lyme disease	Sinus Infections
Appendicitis	Diarrhea	Lymphangitis	Skin cancer
Athlete's foot	Diaper Rash	Malaria	staph infections
Athritis	Dysentery	Meningitis	Stomach Viruses
Bacterial infection	Ear Infection	Mouth sores	Strep infections
Bed Sores	Eczema	Mouth ulcers	Syphilis
Bladder infection	Encephalitis	Nasal infections	Tetanus Infection
Blood parasites	Eye Infection	Parasitic infections	Thrush
Blood poisoning	Fibrositis	Pink Eye	Thyroid
Boils	Flu	Pleurisy	Tonsillitis
Bubonic plague	Food poisoning	Pneumonia	Toxemia
Burns	Gastroenteritis	Prostate	Tooth abscess
Cancer	Gonorrhea	Pruritus Ani	Tooth infections
Candida	Gum infections	Psoriasis	Tuberculosis
Chilblains	Hay fever	Purulent ophthalmia	Ulcerated stomach
Cholera	Herpes	Respiratory infections	Urinary infections
Cold sore	Hiv/Aids	Rhinitis	Viruses - all forms
Colitis	Impetigo	Ringworm	Warts
Common cold	Indigestion	Scarlet fever	Whooping Cough
Conjunctivitis	Keratitis	Seborrhea	Yeast infections
Cystitis	Leprosy	Septic conditions	
Dandruff	Leukemia	Septicemia	

## SOME USEFUL TIPS

- ◆ Foot Odour – Spray toes and feet morning and night.
- ◆ Spray shoes internally to remove odour.
- ◆ Handbags/purses/wallets – a quick light spray.
- ◆ Flying – spray and inhale, spray on trays/surfaces to sanitise.
- ◆ Hands - spray and work hand together.
- ◆ Worktops/door handles, faucets – sanitise with a light spray.
- ◆ Ornamental indoor fountains – add a little to stop mould growth.
- ◆ A little in a flower vase water will prolong cut flower life

## 6.2 Treatment for Pets/Animals

Please do consult your local vet or veterinary clinic for any animal sicknesses.

We all love animals whether they are dogs, cats, horses, rabbits, gerbils, ferrets, birds or any other living creature.

Common Animal Ailments		
Abrasions	Eczema	Mud fever
Abscesses	Eye infections	Nasal infections
Bacterial infections	Feline herpes	Parasitic infections
Bladder infections	Feline leukemia	Pimples
Burns	Fungal infections	Ringworm
Canine parvo virus	Heartworm	Scours
Cuts	Kidney infections	Stomach ailments
Distemper	Mange	Virus infections
Ear infections	Mouth infections	Warts

The table lists some of the many ailments that causes suffering to creatures of the world and that have been eliminated by colloidal silver.

Use the human dosage table in section 6.1 for mammals, reptiles and birds. Fish in tanks will benefit from adding a few drops to the water. In general terms, animals can be treated using an eye-dropper or by spray or by a syringe into their mouth. Adding a little colloidal silver to the drinking bowl is often a popular method. Add it to food. Add colloidal silver to bath water, shampoos, spray on pet bedding to sanitise.

## 7.0) TROUBLESHOOTING AND QUESTIONS

QUESTION	ANSWER
When I connect up and switch on, no red or blue light comes on.	Check the wall plug and socket. Is the socket switched on, Is the plug on the generator fully inserted. Have the wall power supply checked by a qualified electrician.
When I connect up and switch on, the red "process" light stays on and does not flash.	A continuous red light indicates that the electronic system failed to initiate. Simply switch off, wait for ten seconds and switch on again.
Can the electrode rods give me a shock?	Absolutely not. They are quite safe to touch however always unplug from the wall if lightning is a possibility.
Can I test the generator in any way?	Yes. The test can be done without distilled water. Simply switch on at the wall, red and blue indicators slowly flash. Now push the start pad, red goes off and blue starts to flash quickly, then red flashes slowly. All should be well.
The process had started (or was finished) and I pressed the "Start" pad again by mistake but nothing happened.	After the process starts, the start pad is disabled and is ignored.
Can I switch off again after pushing the start pad?	No. You can only stop the process by switching off at the wall supply. The generator is reset by switching off and then on again at the wall.
There was a mains power failure during the process.	Simply push the start pad again and the generator will continue to complete the process and switch off.
Will the generator be overloaded if I make batches one after the other?	No. You can make batch after batch. The wall supply and generator are rated for continuous service.
I cleaned the electrode rods but the process has darkened them.	This is a normal formation of silver oxide. Carefully remove the electrodes from the water for cleaning.

Why do the electrodes have beads fitted to their end	The bead prevents electrical charge concentrating at the end point. Be careful not to dislodge the bead when cleaning. It is quite normal for the beads to discolour over time.
Must I clean the electrode rods during the process?	This is not necessary. Only clean the electrodes gently after each process run.
Does the temperature of the water affect silver production.	Not really. The generator always adds the same pre-determined content of silver concentration at any room temperature. However, do not heat or cool the water.
Do I need to refrigerate colloidal silver	Do not refrigerate. Colloidal silver will remain potent for up to six months when stored in a dark glass container at room temperature.

## 8.0) TECHNICAL SPECIFICATION

A domestic generator unit used to create silver ions and suspended colloidal nano-particles in water by a process of electrolysis.

Description	Value
<b>Silver Generator</b>	
Input Voltage	24Vdc
Input Current	<20mA
Output Voltage	0 – 23Vdc automatic control
Output Polarity	Low frequency alternating
Output Current	500uAdc ±10%
User controls	Start pad
Visual indicators	Blue LED “Ready”, Red LED “Process”
Operating temperature	0 - 50°C ambient
Storage Temperature	-40 - 85°C
Operating Humidity	5 – 95% non-condensing
Safety Approval	CE
<b>Wall power Supply</b>	
Input Voltage	85 – 263Vac
Input Frequency	47 – 63Hz
Input Current	1.5A (Max)
Output Voltage	24Vdc ±4%
Output Current	0.65Adc (Max)
Operating temperature	0 - 50°C ambient
Storage Temperature	-40 - 85°C
Operating Humidity	5 – 95% non-condensing
Safety Approval	CE CCC UL

## **9.0) PRODUCT WARRANTY AND CERTIFICATES**

# **COSILVER NANO 400 Two Year Limited Warranty**

### **1) General Terms and Conditions**

- 1.1) The original purchase invoice or receipt must be provided with any warranty claim.
- 1.2) The product under warranty must be in normal use for which it is intended.
- 1.3) The product must be operated in accordance with the provided instructions.
- 1.4) Cove retains the right to have any remedial work required during the warranty period to be completed by any agent, dealer, re-seller or other appointment by Cove.
- 1.5) Notice of any defect must be provided to an authorised Dealer or to the manufacturer within fifteen days of the failure date.
- 1.6) The remaining warranty period at any time is transferable.
- 1.7) Cove reserves the right to change or update this warranty at any time.

### **2) What the Warranty Covers**

- 2.1) Cove warrants that the product complies to standard specification upon delivery and for a period of 24 (twenty four) months following the date of original purchase.
- 2.2) Any product failure traceable to defective design, material, component or sub-assembly.
- 2.3) During the warranty period, Cove will at its sole discretion repair, replace defective components or sub-assemblies or refund the purchase price of the product.
- 2.4) Repaired or replaced product may be new, upgraded, re-manufactured or refurbished at the sole discretion of Cove.
- 2.5) Cove will provide return shipping to customers within South Africa or to the nearest port of entry for customers outside South Africa.

### **3) What the Warranty Does Not Cover**

- 3.1) Any shipping costs for product delivery to Cove or any appointed Dealer or alternative repair facility.
- 3.2) Any equipment not manufactured by Cove.
- 3.3) Product that has undergone modification or tampering.
- 3.4) Any form of abuse, misuse or vandalism.
- 3.5) Damage resulting from lightning, fire or any other consumer insurable loss.
- 3.6) Damage due to voltage irregularities and utility power failures.
- 3.7) Damage due to use with any unsuitable power source or wall adapter.
- 3.8) Any damage to the product during shipping.
- 3.9) Any obligation to implement any future design changes or improvements.
- 3.10) Consequential loss due to any failure of any part of the product.
- 3.11) Normal wear of the silver electrodes through normal use.
- 3.12) Compensation or costs due to any variance in the silver content produced by the product.

## **10.0) CONTACT DETAILS**

### **CONTACT DETAILS**

(COSILVER products are manufactured by Cove Developments cc)

Cove Developments CC  
8 Mendelsohn Avenue  
Pari Park  
Port Elizabeth  
6070 RSA

Telephone: +27(0)83 268 4254  
Website: [www.cosilver.co.za](http://www.cosilver.co.za)  
email: [sales@cosilver.co.za](mailto:sales@cosilver.co.za)