



Clean new life Silver Ion Water Manufacturing Machine

DEMETER | MIRACLE

Strong anti-bacterial/ antivirus/ anti-fungal effects



CNL silver ion water offers strong anti-bacterial, antivirus and anti-fungal effects with persistency

● What is silver ion water? ●

Silver was used as natural antibiotic material from ancient times. Silver is in the form of silver ion (Ag^+) that shows the strongest anti-bacterial, antivirus and anti-fungal effects when melted in water. The state when silver is melted as ion form in water is called silver ion water, colloidal silver and silver solution.



Normally antibiotic materials kill 5~6 types of pathogens. On the other hand, silver ion water kills about 650 types of pathogens, including food poisoning bacteria, to have outstanding effects on viruses and fungus. Anywhere that is touched by the silver ion water will show a strong anti-bacterial, antivirus and anti-fungal effects.

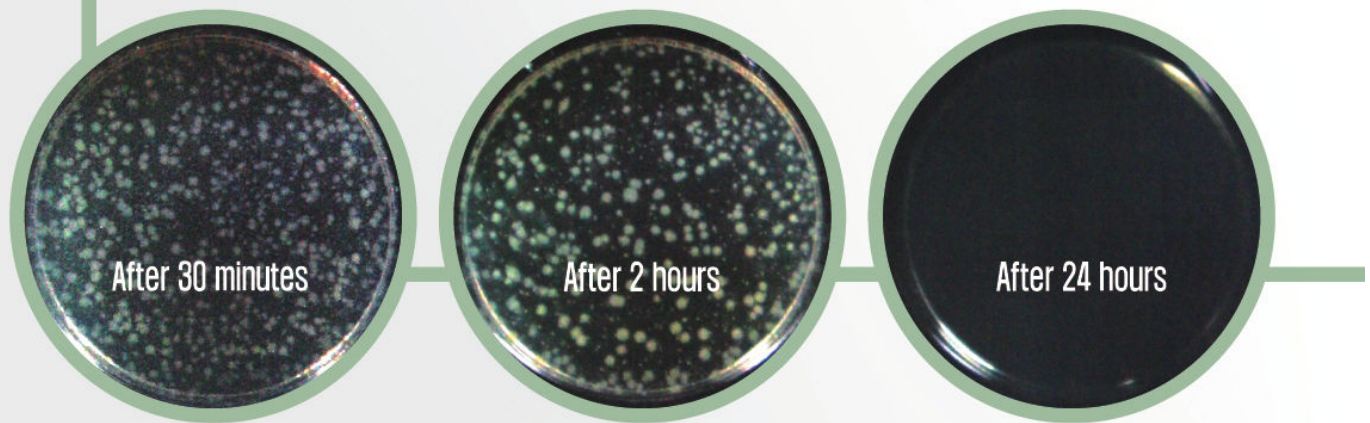
Also, the effect of the silver ion water is not a one-time thing, but ensures persistency.



What is silver (Ag^+) ion water?

Silver ion water comes from refining, heat-treatment and electrolyzing **99.9979%** of pure silver, which has about 650 types of outstanding anti-bacterial, antivirus and anti-fungal effects as unsterilized and non-toxic natural sterilizing water.

- ▶ Strong anti-bacterial, antivirus and anti-fungal effects
- ▶ Unsterilized and non-toxic (harmless to humans) to multi-cellular animals and plants
- ▶ Sterilizing causative bacteria of food poisoning and removing mold
- ▶ Deodorizing effects
- ▶ Virus-intolerant
- ▶ Persistent antibacterial power
- ▶ Continuous production system [automatic measuring of concentrations (PPM)]



Silver Ion Water: Result of Bactericidal Test on Food Poisoning Virus (Unit: CFU/mL)

Test strains	Initial	After 30 minutes	After 2 hours	After 24 hours
<i>E. coli</i>	5.0×10^5	5.4×10^4 (89.2%)	8.1×10^2 (99.8%)	< 10 (99.9% More than)
<i>S. aureus</i>	5.0×10^5	1.2×10^5 (58.6%)	1.2×10^4 (95.9%)	< 10 (99.9% More than)
<i>S. typhimurium</i>	5.0×10^5	3.3×10^4 (96.6%)	5.5×10^2 (99.9%)	< 10 (99.9% More than)
<i>P. aeruginosa</i>	5.0×10^5	4.7×10^5 (42.0%)	5.9×10^2 (99.9%)	< 10 (99.9% More than)
<i>S. flexneri</i>	5.0×10^5	3.3×10^5 (26.7%)	1.8×10^5 (60.0%)	< 10 (99.9% More than)
<i>B. cereus</i>	5.0×10^5	5.2×10^4 (91.3%)	6.0×10^3 (99.0%)	< 10 (99.9% More than)
<i>B. subtilis</i>	5.0×10^5	1.2×10^4 (89.1%)	1.1×10^2 (99.9%)	< 10 (99.9% More than)
<i>L. monocytogenes</i>	5.0×10^5	9.1×10^4 (43.1%)	9.0×10^3 (94.4%)	< 10 (99.9% More than)

E. coli : Headache, nausea, abdominal pain, diarrhea, etc. (food poisoning virus including 0-157, etc.)

S. aureus : Bacteremia, endocarditis, pneumonia, inflammation in the middle ear, osteomyelitis purulenta, arthritis, myositis, etc.

S. typhimurium : Gastroenteritis, fever, headache, nausea, diarrhea, stomachache, etc

P. aeruginosa : Representative virus that caused blood poisoning, bacillus under pseudomonas with very high death rate

S. flexneri : Food poisoning causative virus, high fever, nausea, abdominal cramp, diarrhea, etc

B. cereus : Food poisoning causative virus with heat resistance that can endure 4 hours of heating at 135°C

B. subtilis : Soybean paste, ferment vacillus

L. monocytogenes : Cold virus that is not killed in frozen state. Diarrhea, headache, stomachache, pregnant women miscarriage, blood poisoning, meningitis



Untreated silver ion water Tricyclazole

Rice blast disease



Untreated silver ion water Dithianon

Pepper anthracnose



Untreated silver ion water Chlorothalonil

Tomato late blight



Silver Ion Water: Result of Plant Disease Preventive Effect

Control value(%)

Category of analysis test	RCB ^a (Rice blast disease)	TGM (Tomato gray mold)	TLB (Tomato late blight)	WLR (Wheat leaf rust)	PAN (Pepper anthracnose)
	100	14	94	83	90



Silver Ion Water: Result of Plant Disease Treatment Effect

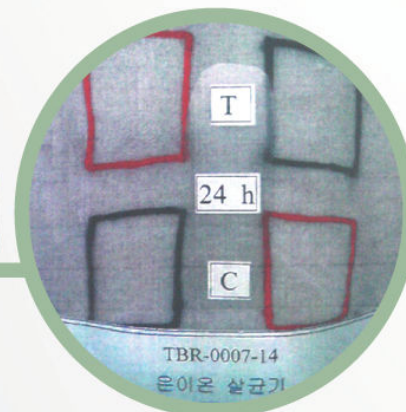
Control value(%)

Treatment concentrations(ppm)	RCB ^a (Rice blast disease)	RSB (Rhizoctonia solani)	TGM (Tomato gray mold)	TLB (Tomato late blight)	PAN (Pepper anthracnose)
0,5	83	15	50	96	0
1	100	20	50	96	38
2	100	15	50	98	25
5	100	15	50	99	13



Result of Silver (AG) Ingredient Analysis

Category of analysis test	Unit	Analysis standard	Result value	Test method
Ag	%	99.99% More than	99.9979	ICP-OES



Silver Ion Water: Result of Oral Dose Toxicity Test, Cornea Opacity Test and Skin Irritation Test

Type of test	Result of test
Oral dose toxicity test	No abnormal findings were found in the autopsy result of surviving animals, and when the silver ion water is orally administered into rats, the toxicological findings were not recognized regarding the administration of test materials.
Cornea opacity test	The result of observing cornea opacity in the 1st, 2nd, 3rd, 4th and 7th days after treating test materials showed that no cornea opacity was observed in both the rinsed and non-rinsed groups (unsterilized).
Skin irritation test	Silver ion water is regarded as none-irritant materials according to the skin irritation test on rabbits.



Silver Ion Water: Result of Deodorizing Effect Test

Category of deodorizing test	Unit	Classification of sample	Result	Note
Ammonia	ppm	Initial	100(100)	Odorous substances including excretion
	ppm	After 2 hours	15(99)	
Formaldehyde	ppm	Initial	20(20)	Cause substances of new house syndrome (cancer and atopic dermatitis induced materials)
	ppm	After 2 hours	3(20)	
Acetic acid	ppm	Initial	50(50)	Food waste smell
	ppm	After 2 hours	1(50)	



Application Scope of Silver Ion Water



Households/ Restaurants/ Hospitals/ Kindergartens/ Schools

- Bacterial eradication of dishes, dishcloths cutting boards and vegetables
- Used for laundries – Bacterial eradication of textiles
- Hand washing, gargle
- Used for humidifier water
Sterilizing humidifier and bacterial eradication of air



Small-sized
MIRACLE



Fountain/ Cooling Tower/ Swimming Pool/ Bathhouse

- Inhibiting mosses (red tide, green tide)
- Sterilization of water play areas
- Removal of bad smells
(deodorizing effects)

Clean new *life*



Orchard/ Flower & Vegetable Complex Vinyl Greenhouse

- Organic farming (pesticide-free) allowed
- Pesticide alternatives (sterilizer)
- non-toxicity/ non-irritating



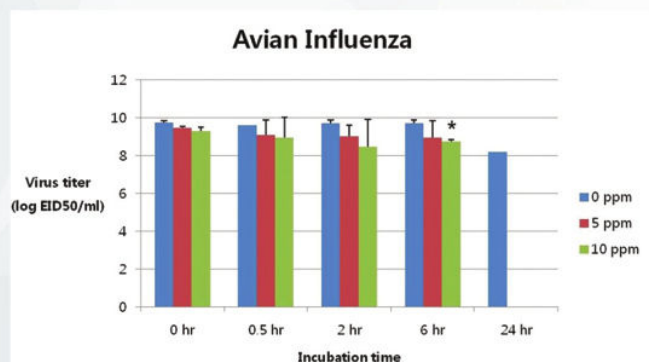
Large volume
DEMETER

Poultry Farming/ Pig Breeding/ Pet Animals/ Bee Farming/ Fish Farming/ Farm Belt

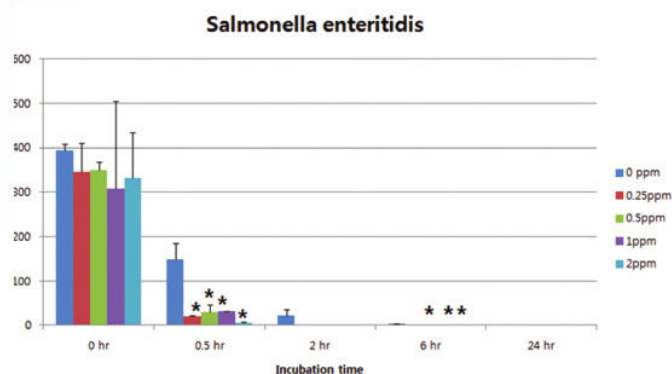
- Removing germs, viruses and molds
- Replacing antibiotics and disinfectants
- Get rid of bad smells in pigsty
- No tolerance and increased level of immunity
- Reducing pet animal smells and skin diseases

CNL Silver Ion Water Effects

Anti-virus Effect Test on Avian Influenza Viruses for Silver Ion Water



Verifying the anti-virus effect on avian influenza viruses



Verifying antivirus effect on Salmonella enteritidis

Effect of Easing Atopic Dermatitis

Making the atopic dermatitis better after continuously spraying silver ion water on the atopic area



Manufacturer

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