# Power of ZERO Information Materials



孫の世代に真の環境浄化された地球を残したい

把环境优美的地球留给子孙后代

We'd like to turn over a purified environment for the new generation.

Download: http://www.zero-emi.jp/downroad/

# ZERO Co.,Ltd.

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# I. Power of ZERO

### Environmental Cleanup Effect of Power of ZERO

The Power of ZERO eliminates odor, removes bacteria and germs by activating natural depuration and utilizing the power of microbes effectively in an expeditious manner just like rivers and lands in the natural world depurate contaminated material, festering trashes and bad odor over time.

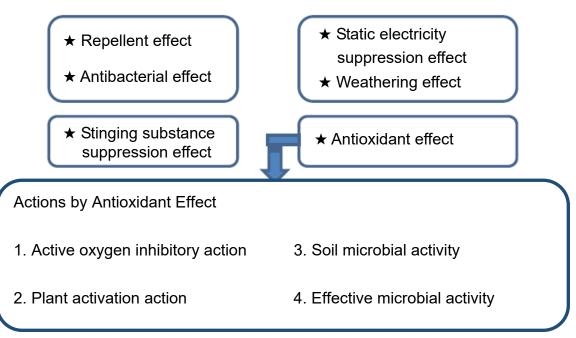
Since the Power of ZERO is fully constructed by natural materials, such as leaves of Japanese persimmon, fig, and bamboo trees, you can use it safely and harmlessly.

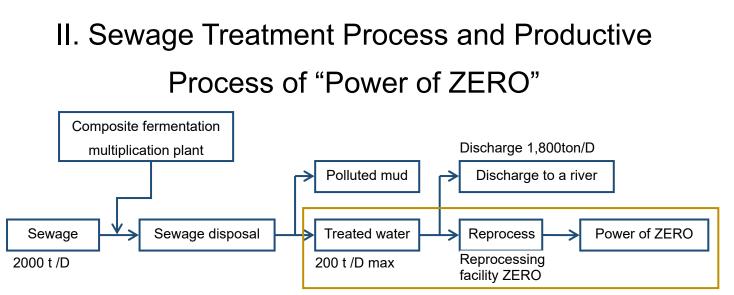
### Features of Power of ZERO

- 1. Negative ions eliminate odors in the air and set up a comfortable environment.
- 2. Suppression of foul odors stuck on the walls, floors, clothes, and eliminate airborne bacteria and falling bacteria.
- 3. Function of antioxidant enzyme suppresses the generation of offensive odors.
- NOTE: Negative ions which are oxygen atoms, charged with an extra electron having the effect of suppressing pollutants.
- NOTE: Antioxidant enzyme has simultaneous oxidation, reduction functions, decomposes pollutants, and malodorous substances.

(It is well-known that light-catalyzed oxidized titanium has antioxidant effectiveness. The mechanism of this effect is; the surface that has oxidized titanium applied oxidizes and decomposes contamination by light. At the same time, the surface is charged with an electron (reduction effect). Consequently, rust does not occur. This effect is widely used on outside walls of the buildings and sign boards on highways.)

Effect of Power of ZERO





Our company was established in March 2012. Since the institution's formation, we have been upholding "ZERO Emission" as a policy of our company. We have a formally-inaugurated partnership with Yohu-city where also sets out to be a "ZERO Emission City". We are promoting sewage cleanup at the Yohu Clarification Center. Furthermore, we are engaged in the reduction of environmental load by setting out to erase the sewage completely.

Our sewage cleanup and complete erasure of sewage activities use no artificial chemicals. However, they utilize natural microorganisms and our own sewage disposal system uses a unique complex-fermentation technology. (Refer to the top illustration.)

The above mentioned process uses a technology, which ferments natural materials such as water, extraction liquid of bamboo leaf, Japanese plum, fig, sweet chestnut, peach, and okara and black treacle. It goes hand-in-hand with many useful microorganisms in sewage water, resulting in breaking down the sewage.

As production techniques of Japanese Sake are applied to this microbiological growth method, the poison content of the treated water is significantly lower than the river quality standard without applying disinfection process by chlorine. The treated water is discharged to a river. Currently, we are not able to completely erase the pollution in the polluted mud, but it is gradually decreasing. We have been studying above mentioned treated sewage water and polluted mud with this composite microbiological growth method; it becomes clear that the water and mud have a positive impact on agricultural water and odor reduction.

The treated water is piped into our factory, the composite microbiological growth liquid is added again, and undergoes 8-treatment steps, then a product namely "Power of ZERO" is produced.

The "Power of ZERO" produced by the above process has significant antioxidant behavior, suppression of active oxygen functions, plant activation, activation of soil microorganism functions, and useful microorganisms.

#### What is the complex-fermentation technology?

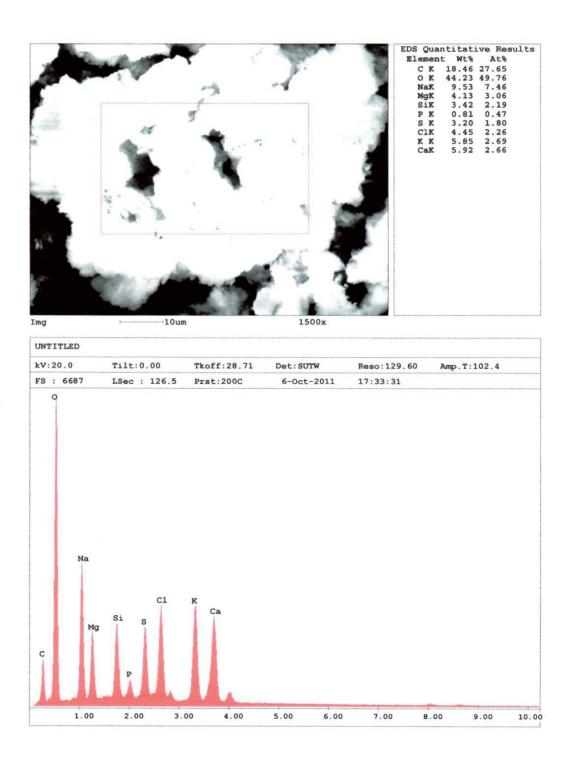
Usually, it is said that anaerobic microorganisms and aerobic microorganisms can not exist together. The complex-fermentation technology enables this and adds further dynamism to the fermentation to produce a very high density of microorganism life.

As decomposition, fermentation and decay of matter are phenomenon by the actions of microorganisms, liquid having higher microorganism density may show more promising activities than a conventional one.

# **III. Test Results**

### 1. Hyogo Prefectural Industrial of Technology

(1) Component Analysis Test Result of "Power of ZERO"



			Ŭ	Component	Analysis T	est Result	nt Analysis Test Result of Enzyme Water and Raw Materials	Water and	Raw Mate	erials				
	Final discharged w ater	EMBC Undiluted Solution	Enzyme Water	Final discharged w ater	EMBC Undiluted Solution	Enzyme Water	Final discharged w ater	EMBC Undiluted Solution	Enzyme Water	Final discharged w ater	EMBC Undiluted Solution	Enzyme Water	Enzyme Water	Enzyme Water
Solution Weight (ml)	279.8	291.77	289.96											
After Lyophilization Weight (g)	4.48	5.72	0.03											
Yield Constant (%)	0.99	1.96	0.01											
Ash Content (%)	0.3	0.32												
	Fluorescent X-ray Analysis	-ray Analysis		ICP (Mass Spe	Spectrometry)		Total w eight						EDS	
	Applied elemer microanalysis	Applied elements are Na to U. Elemental microanalysis is done by X-ray.	Elemental ly.	A method of inorganic analysis. The type of component element is determined by X-ray spectrum; Contained amount is measured by X-ray intensity.	inorganic analysis. The type of lement is determined by X-ray ontained arrount is measured snsity.	is. The type of ined by X-ray is measured	After Lyophilization (mg/ℓ)+(0.38)(0.13)	After Lyophilization Weight x Mass by ICP (mg/t)+(0.38)(0.13)	Mass by ICP	Total w eight + 100	Total weight + After Lyophilization Weight x 100	ation Weight x	Energy dispersive X-ray analysis Berrental analysis to investigate the elements and concentrations that make up the object	ive X-ray sis to elements and that make up
	mass%		%	mg/ß			ßu			%			Wt(%)	At(%)
													Mass% Atomic Concentration quotient	Atomic quotient
B (Baron)	-	-	-	0.02	0	0.05	0.236	0	0.012	0.005	0	0.038		
Na (Natrium)	0.274	0.335	-	0.6	0.62	7.23	7.074	9.333	1.668	0.158	0.163	5.562	9.53	7.46
Mg (Magnesium)	1.37	3.09		3.35	6.3	2.75	39.495	94.832	0.635	0.882	1.658	2.115	4.13	3.06
AI (Aluminum)	0.0223	0.0111		0.46	0.1	66.0	5.423	1.505	0.228	0.121	0.026	0.762		
Si (Silicon)	0.543	0.751		0.33	0.59	0.7	3.891	8.881	0.162	0.087	0.155	0.538	3.42	2.19
P (Phosphorus)	6.17	0.748	-	4.18	0.48	1.03	49.28	7.225	0.238	11	0.126	0.792	0.81	0.47
S (Sulfur)	3.26	2.36		•	•	•							3.2	1.8
Cl (Chlorine)	16.9	32.4		•		•							4.45	2.26
K (Kalium)	32.1	43.4	-	7.63	6.12	5.11	89.954	92.122	1.179	2.008	1.611	3.931	5.85	2.69
Ca (Calcium)	37.6	15.5		5.08	2.28	4.65	59.891	34.32	1.073	1.337	0.6	3.577	5.92	2.66
Cr (Chrome)	0.049	0	-	0	0	0	0	0	0	0	0	0		
Mh (Manganese)	0.276	0.549	-	0.04	0.08	0.01	0.472	1.204	0.002	0.011	0.021	0.008		
Fe (Ferrum)	0.91	0.59	-	0.17	0.1	90'0	2.004	1.505	0.014	0.045	0.026	0.046		
Ni (Nickelic)	0	0.0194	-	0	0	0	0	0	0	0	0	0		
Cu (Copper)	0.0349	0.0304	-	0	1	0	0	0	0	0	0	0		
Zn (Zinc)	0.192	0.0372	-	0.04	0.01	0.04	0.472	0.151	0.009	0.011	0.003	0.031		
Br (Bromine)	0.11	0.086	-	•	•	-								
Rb (Rubidium)	0.1	0.0769		•	•	•								
Sr (Strontium)	0.09	0.0559	-	'										
Ba (Barium)				0.02	0.01			0.151	0.009	0.005		0.031		
	100.001	100.04	0	21.92	16.69	22.66	258.428	251.229	5.229	15.67	4.392	17.431	37.31	22.59

### (2) Component Analysis Test Result of Enzyme Water and Raw Materials

#### Reference

### Features of Silicon

It is said that Si has the following advantages, but corroborating evidence is very few.

1. Fat breakdown capability --- When Si is introduced to the body, it penetrates into blood capillaries and breaks down fat accumulated inside the blood vessel. It has strong power to break neutral fat; removing cholesterol and lipid peroxide from the inside wall of blood vessels, thus improving the current of blood.

2. Bacteria-killing ability --- Most hot springs containing Si are alkaline in property, and they do not decompose nor give out bad smells even leaving them for more than one week. Because of bactericidal effect of Si, it prevents stains from attaching to a bathtub and washing the bathtub becomes easy. Si also suppresses the activities of Legionella and Bacillus coli.

3. Good for Human Health

- As Si prevents cholesterol from sticking inside the walls of arteries, elasticity of arteries is maintained and arteriosclerosis is prevented. A report said that the artery of a patient with progressive arterial sclerosis contains one fourteenth of the Si compared to the arteries of a normal person. Organs to treat hazardous substances such as the liver are strengthened by maintaining cells and blood vessels, thus the occurrence of allergies is inhibited.
- Eliminate hangovers (activated cells eliminate hangovers. When adding to spirits, its taste changes as if it matured instantaneously.)
- As Si has coating ability on the inside walls of blood vessels, blood flow is improved. Consequently, blood cells are activated and various functions of the human body will be improved.
- Hair becomes dark and mounts up. The cause of bald/gray hair is an aging phenomenon due to active oxygen. Scalp skin should be clean and fatty substances should be decomposed.
- Cell activation (Enhancement of immunity makes the human body less tired)
- Anti-inflammatory action (It has an effect of calming inflammation. Pigmented spots, Insect stings, athlete's foot etc.)
- Ability to penetrate, Nanoizing action (Adding a small amount of water soluble silicon in a toner improves penetrative ability of toner. As the molecule size of water soluble silicon is 0.4 nanometers, it rapidly penetrates into body cells.)
- Far infrared rays (Si emits infrared rays, it has the effect of warming the body.)

#### 2. Odor Control Demonstration Test Result

Ooyama-cho, Tottori-Pref., Japan

Odor Control Demonstration Test at Cattle Farmer in Ooyama-cho, Tottori-Pref.

Transition of ammonia odor (measured at 10cm above the liquid surface)

Add 1/1000 amount of treated water of Milk Cow Urine reservoir (40m<sup>2</sup>) 1 time/month

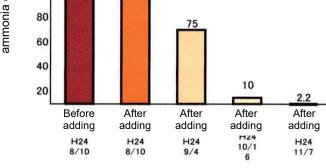
Odor Measurement: Tottori Health Service Association

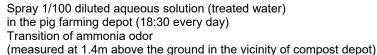
(Dairy Husbandry) Milk Cow: 44 Offensive odor emission

source

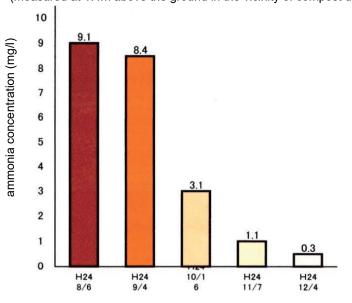
Urine reservoir

200 ammonia concentration (mg/l) 180 180 140 130 120 100 80 75 60 40 10 20 2.2 Before After After After After adding adding adding adding 10/1 H24 H24 H24





(Pig Farming) Black pig: 200 Offensive odor emission source Compost depot



9

### 3. GDV Analysis Result of "Power of ZERO"

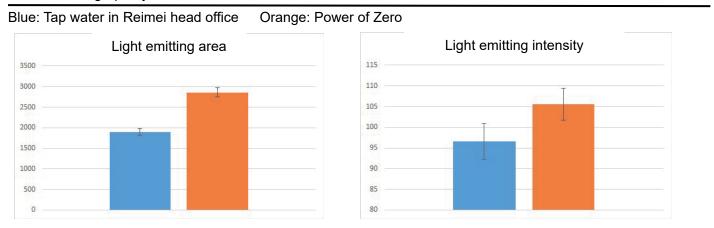
Emeritus Professor of Osaka Prefecture University Shimizu Norinaga Doctor of Medical Science

Reimei Co.,Ltd.

Representative Executive Maeba Shinji

Data Magguradu	Cont 12 2014	Magguramont Turney	Still image
Date Measured:	Sept. 12, 2014	Measurement Type:	Still image
Report Date:	Sept. 13, 2014	Number of shots:	10
Sample 1:	Tap water in Reimei head office	Sample amount:	5µL (measured by syringe)
Sample 2:	Power of Zero	Measurement method:	Syringe measurement by GDV technology
Parameter:	Light emitting area, Light emitting intensity	Measurer:	Yuka Kawasaki

#### Distribution graph by condition



	Tap water	Power of Zero
Light emitting area (average)	1886.8	2858.20
Light emitting area (standard deviation)	86.89	108.37
Light emitting intensity (average)	96.55	105.58
Light emitting intensity (standard deviation)	4.305	3.8979

Excitation energy of "Power of Zero" is measured by GDV analysis method.

Both GDV light emitting area and intensity analysis results, significant difference is detected the "Power of Zero" compared to tap water. "Power of Zero" has higher excitation energy (P<0.05) than tap water.

### 4. Water quality inspection of water treated by "Power of ZERO"

(50 items check according to the Japanese Water Supply Act)

### Water Quality Inspection Test Sheet

#### Water supply and sewerage general administration section,

#### Department of Living Environment, Yabu City Government

Sampling Date	Jun 28,	2011	
Facility	Sewage	e treatment plant	
Sampling point	Youka (	Clarification Center	
Sample water	Sewage	e treatment water (No ste	
Residual chlorine		Ambient temperature	Water temperature
_	(mg/l)	30.0°C	29.0°C
Sampler Ryuichi Nishimura			
Division Name		upply and sewerage gen Department of Living En	

#### Test Results for Standard Items

No	Check Item	Measured value (mg/l)	Criteria (mg/l)	No	Check Item	Measured value (mg/l)	Criteria (mg/l)	No	Check Item	Measured value (mg/l)	Criteria (mg/l)
1	General bacteria	64 pcs./m1	100 pcs./ml or less	19	Benzene	Less than 0.001	0.01 or less	37	Chloride ion	58	200 or less
2	Bacillus coli	Not detected	Not detected	20	Chloric acid	Less than 0.06	0.6 or less	38	Calcium, Magnesium (hardness)	72	300 or less
3	Cadmium and its compounds	Less than 0.0003	0.003 or less	21	Chloroacetic acid	Less than 0.002	0.02 or less	39	Evaporation residue	230	500 or less
4	Mercury and its compounds	Less than 0.00005	0.0005 or less	22	Chloroform	Less than 0.001	0.06 or less	40	Anionic surfactant	Less than 0.02	0.2 or less
5	Selenium and its compounds	Less than 0.001	0.01 or less	23	Dichloroaceti c acid	Less than 0.004	0.04 or less	41	Geosmin	Less than 0.000001	0.00001 or less
6	Lead and its compounds	Less than 0.001	0.01 or less	24	Dibromochlor omethane	Less than 0.001	0.1 or less	42	2-methylisophoro neol	Less than 0.000001	0.00001 or less
7	Arsenic and its compounds	0.001	0.01 or less	25	Bromate	Less than 0.001	0.01 or less	43	Nonionic surfactant	Less than 0.005	0.02 or less
8	Hexavalent chromium compound	Less than 0.005	0.05 or less	26	Total trihalometha ne	Less than 0.001	0.1 or less	44	Phenols	Less than 0.0005	0.005 or less
9	Cyanide ions and cyanogen chloride	Less than 0.001	0.01 or less	27	Trichloroaceti c acid	Less than 0.02	0.2 or less	45 *	Organic matter (Amount of Total organic carbon (TOC))	3.5	3 or less
10	Nitrate Nitrogen and Nitrite Stimulation	3.1	10 or less	28	Bromodichlor omethane	Less than 0.001	0.03 or less	46	рН	7.7	5.8 to 8.6
11	Fluorine and its compounds	0.10	0.8 or less	29	Bromoform	Less than 0.001	0.09 or less	47 *	Taste	Measuremen t omitted	Not abnormal
12	Boric acid and its compounds	0.05	1.0 or less	30	Formaldehyd e	Less than 0.008	0.08 or less	48	Odor	Not abnormal	Not abnormal
13	Carbon tetrachloride	Less than 0.0002	0.002 or less	31	Zinc and its compounds	0. 03	1.0 or less	49 *	Chromaticity	15 degree	5 degree or less
14	1,4-dioxane	Less than 0.005	0.05 or less	32	Aluminum and its compounds	0.05	0.2 or less	50	Turbidity	Less than 0.1 degree	2 degree or less
15	Cis-1,2-dichloro ethylene and clumene-1,2-dic hloroethylene	Less than 0.004	0.04 or less	33	Iron and its compounds	Less than 0.03	0.3 or less		Organic materials etc. (Potassium permanganate consumption)	-	10 or less
16	Dichloromethan e	Less than 0.002	0.02 or less	34	Copper and its compounds	0.01	1.0 or less		Bacillus coli	-	-
17	Tetrachloroethyl ene	Less than 0.001	0.01 or less	35	Natrium and its compounds	42	200 or less				
18	Trichloroethylen e	Less than 0.001	0.01 or less	36	Manganese and its compounds	Less than 0.001	0.05 or less				
	Remarks		ults of * marked i r drinking, taste t			ria of Japanese	Water Sup	ply Ac	t and this water is	Examination a Inspection Mar Koichi Obara	

No. 83336 July 15, 2011

\*道法第20条登録機関 厚生等
 (財)ひようご環境
 〒654-0037 神戸市須藤区行3

(078) 735-2772

(078) 736-4550

TEL

FAX

### **Inspection Report**

No. A315161 (1/1)

### To: ZERO Co., Ltd.

As requested, inspection results related to the concentration is reported as follows. Registration of the Measurement Business Certification Number Hyogo pref. No. 61 Registration number of Building Drinking Water Quality Inspection Organization: Hyogo Water No. 16-1 Registration number of Building Air Environment Quality Inspection Organization: Hyogo 6-Air No. 16-1 221-1, Hayashigaki, Wadayama-cho, Asago-shi, Hyogo Pref. TEL: 0796(72)5615

Issued Date: Sept. 15, 2015 Sample Acceptance Date: Sept. 10, 2015 Sampling Date: Sept. 10, 2015 Sampling Time: 8:31 Sampling Class.: Obtaining water (Sampler: Nakano)

十量管理者

テクノ柏村

Sample Name: Enzyme water

Inspection Method: Ministry of Health, Labor and Welfare Notification No. 261 (Jul. 22, 2003)

Inspection Item	Result	Unit	Criteria of Japanese Water Supply Act
Bacillus coli	Negative	-	Shall be negative.

### 5. "Power of ZERO" Certificate of water inspection for food production

Inspection is done for 100 times using diluted aqueous solution of "Power of ZERO" Judgment: It conforms "Food Production Standard for Water Production" of Food Sanitation Law. Inspection date: March 15, 2016 to March 30, 2016

No. AK16-14-0219: March 31, 2016

No. AK16-14-0219

March 31, 2016

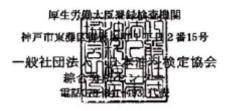
### **Certificate**

To: ZERO Co.,Ltd.

We certify the inspection result by your request as follows.

Sample name: Power of ZERO

Reception date: March 15, 2016



#### [Standard for water composition for food production: Food Sanitation Law]

Items	Result	Standard value	Items	Result	Standard value	
General bacteria	0/ml	100ml or less	Manganese	Less than 0.005mg/l	0.3 mg/l or less	
Bacillus coli	Negative	Not detected	Chlorine ion	0.6mg/l	200 mg/l or less	
Cadmium	Less than 0.0003mg/l	0.01mg/l or less	Calcium,			
Mercury	Less than 0.00005mg/l	0.0005 mg/l or less	Magnesium (hardness)	1mg/l	300 mg/l or less	
Lead	Less than 0.001 mg/l	0.1mg/l or less	Evaporation residue	Less than 5 mg/l	500 mg/l or less	
Arsenic	Less than 0.001 mg/l	0.05 mg/l or less	Anionic surfactant	Less than 0.02 mg/l	0.5 mg/l or less	
Hexavalent chromium	Less than 0.005 mg/l	0.01 mg/l or less	Phenols	Less than 0.005 mg/l	0.005 mg/l or less	
Cyan (cyanide and cyanogen chloride)	Less than 0.001 mg/l	0.01 mg/l or less	Filenois	Less than 0.005 mg/i	as Phenol	
Nitrate Nitrogen and Nitrite Stimulation	0. 03mg/l	10 mg/l or less	Organic materials etc. (KMnO4	0.5mg/l	10 mg/l or less	
Fluorine	Less than 0.05 mg/l	0.8 mg/l or less	consumption)			
Organic phosphorus	Less than 0.02 mg/l	0.1 mg/l or less	рН	7.0(19°C)	>5.8, 8.6>	
Zinc	Less than 0.01 mg/l	1.0 mg/l or less	Taste	Not abnormal	Not abnormal	
Ferrum	Less than 0.01 mg/l	0.3 mg/l or less	Odor	Not abnormal	Not abnormal	
Copper	Less than 0.01 mg/l	1.0 mg/l or less	Chromaticity	Less than 1	5 degree or less	
		-	Turbidity	Less than 0.5	2 degree or less	
Judgment: Concerning	the above water quality	items, it conforms S	Standard for Water Pr	oduction.		

Inspection date: from March 15, 2016 to March 30, 2016 Inspection method: According to the Food Sanitation Law, Ministry of Health and Welfare Notification No. 370 "Food Production Water".

Inspection manager: Aiichiro Ikeda

[Standard for soft drink ingredients]

Items	Result	Inspection Method
Turbidity	Not detected	
Precipitate	Not detected	
Lead	Not detected	<ul> <li>According to Component Specifications</li> <li>of Soft Drinks of Food Sanitation Law</li> </ul>
Arsenic	Not detected	
Bacillus coli	Negative	
Remarks: Inspe	ction was done for 100 times diluted aque Margin Below	ous solution

# **Experiment Report**

Requested work: Study on safety of oral administration of "Power of ZERO"

Tottori University Konan Minami 4 chome, Tottori-shi, Japan 680-8553 TEL: 0857-31-5007

#### 1. Title

Title: Study on safety of oral administration of "Power of ZERO"

#### 2. Study method

Administer enzyme water of "Power of ZERO" to mice. Investigate impact for general condition and blood parameters.

#### 3. Facility

Address: Konan Minami 4 chome, Tottori-city, Japan 680-8553 Facility name: Veterinary science lab, Department of veterinary medicine common with agricultural department, Tottori University Test manager: Yoshiharu Okamoto (TEL 0857-31-5440, FAX 0857-31-5440)

#### 4. Test schedule

#### 4.1 Test content

Administer enzyme water of "Power of ZERO" to mice for 30 days. Investigate its impact for general condition and blood parameters.

4.2 Test schedule

Administer start: Day 0 Weight measurement/Grouping: Day 0 (after preliminary rearing) Feeding/Observation of general symptom: Day 0 to Day 30 Weight measurement: Day 0, 10, 20, 30 (4 points)

5. Test subject
Type: Mice
Variety: BALB/c
Source: Purchased 5 weeks old mice from CLEA Japan, Inc.
Sex, number used: Female, 20
Age at test start: 6 weeks

6. Breeding condition

Mouse breeding room, Animal testing facility at Tottori district, Tottori University (Room temp. 22 to 25 °C, Humidity 50 to 70%, Light/dark cycle: 12/12 hours (AM7:00/PM7:00))

7. Feed and drinking water7.1. Preliminary rearing periodName: Powder feed for laboratory animals CE-2

Source: Purchased from CLEA Japan, Inc. Feed method: Free feed

7.2 Feed for test periodName: Powder feed for laboratory animals CE-2Source: Purchased from CLEA Japan, Inc.Feed method: Free feed

7.3. Drinking waterTap water:Water supply method: Free feed by water supply bottleTest water:

Free feed undiluted solution, 10 times diluted aqueous solution (tap water), and 100 times diluted aqueous solution (tap water) of enzyme water of "Power of ZERO" with water supply bottle.

8. Individual identification

Bred 5 animals per gauge, identified by marker

9. Grouping

Timing: Day0

Grouping table:

Group	Feed	Drinking water	Number of mice
(1) Control group	CE-2	Tap water	5
(2) Undiluted solution group	CE-2	Undiluted solution	5
(3) 10 time diluted aqueous solution group	CE-2	10 time diluted aqueous solution	5
(3) 100 time diluted aqueous solution group	CE-2	100 time diluted aqueous solution	5

#### 10. Measurement

10.1. General symptom observation

Observation date: Day 0 to 30 (total 29 times) once the morning

Observation method: Feeding weight of feed, general health condition, observation of hair condition

10.2 Weight measurementMeasurement date: Day 0, 28 (2 points)Measurement method: Measure and record weight after observation of general health at morning

11. Vote/Inspection item

11.1. Vote

Date of implementation: Day 28 (1 point)

Observation method: Bleeding from abdominal large vein (Anticoagulant is EDTA and heparin) Followed by centrifugation to obtain plasma.

11.2. Inspection item

- Body weight

- General state observation result

- Blood biochemical examination: ALB (total protein), GOT/GPT/ALP (Liver enzyme), TB (Total bilirubin), TG (Neutral fat), T-cho (Total cholesterol), Glu (Blood glucose level), BUN (Urea nitrogen), CRE (Creatinine)

#### 12. Result

12.1. Weight change

	day 0	day 10	day 20	day 30
Control	23.3 ± 1.8	27.5 ± 1.8	29.2 ± 1.9	30.7 ± 2.3
100 times	23.5 ± 1.2	27.7 ± 1.0	28.7 ± 1.2	30.1 ±1.1
10 times	23.6 ± 1.5	26.8 ± 1.0	28.8 ± 0.9	29.9 ± 1.0
Undiluted solution	23.7 ± 1.2	27.6 ± 1.0	29.0 ± 1.1	29.8 ± 0.9

Values are mean ± standard deviation. No body weight change was observed between each group.

#### 12.2. Blood biochemical examination

	TP	ALP	ALB	GPT	GOT	ТВ
Control	5.1 ± 0.3	290.4 ± 33.0	2.0 ± 0.2	26.2 ± 3.4	66.0 ± 26.2	0.4 ± 0.2
100 times	5.2 ± 0.3	276.6 ± 47.6	2.1 ± 0.2	26.2 ± 3.4	57.0 ± 21.8	0.4 ± 0.1
10 times	4.8 ± 0.2	436.0 ± 41.2**	2.1 ± 0.1	33.0 ± 7.2	48.6 ± 3.9	0.2 ± 01
Undiluted solution	4.8 ± 0.1	399.0 ± 49.4**	2.1 ± 0.1	31.6 ± 8.7	68.8 ± 31.8	0.4 ± 0.2

	TG	T-Cho	Glu	BUN	CRE
Control	253.8 ± 129.4	108.6 ± 12.6	80.0 ± 28.2	19.3 ± 3.8	0.2 ± 0.1
100 times	201.0 ± 100.7	113.2 ± 8.4	81.0 ± 27.4	18.3 ± 3.6	0.2 ± 0.1
10 times	179.8 ± 41.4	90.2 ± 5.3*	80.8 ± 6.6	17.8 ± 1.6	0.1 ± 0.1
Undiluted solution	144.0 ± 29.5	88.0 ± 7.4**	100.0 ± 12.5	19.5 ± 1.8	0.2 ± 0.1

Values are mean ± standard deviation. Compared with the control group \*\*p, 0.01, \*p<0.05

The APL of both undiluted and 10 times diluted aqueous solution indicate significantly high values. Further, T-cho of both undiluted and 10 times diluted aqueous solution indicate significantly low values.

Based on the above results, general health condition and weight are not affected by ingesting the undiluted enzyme for one month. However, the result of blood biochemical examination revealed that ingesting undiluted and 500 time diluted aqueous, increased ALP and decreased T-cho. ALP is contained in the liver, bone, small intestine, and placenta; if these organs are damaged, the amount of ALP in the blood increases. However, value of GPT and GOT do not rise in this experimental result. Therefore, the rises due to hepatic disorder are considered negative.

T-cho is ingested from food or synthesized in the liver. Basically, cholesterol rises due to various causes such as a diet high in fat and reduced hypothyroid function. Therefore, foods and supplements that lower cholesterol are attracting attention. DHA and EPA are representative ones. T-cho was significantly decreased by ingesting undiluted and 10 time diluted aqueous in this experimental result. However, a substance that reduces T-cho is not contained in the aqueous by current knowledge. It is suggested that the decrease of T-cho indicated in this experimental result is not a direct but an indirect effect.

It is also suggested that one of the reasons for the decreased T-cho is the effect of intestinal bacteria. Variations of ALP and T-cho in blood in this time need detailed study in disease model etc in the future.

# IV. Power of ZERO Photographs of Demonstration Test

- 1. The Discharge of "Power of ZERO" Treated Water to a River from the Youka Clarification Center
- 2. Agricultural Experimental Trial Reports
  - (1) Rice Cultivation
  - (2) Verification Test of Growing Kale and overcoming injury by continuous cropping Outlive of Replant Failure
  - (3) Growth Test of Carnation
  - (4) Growth Test of Cabbage
  - (5) Prolong the Life of a Cut Flower
  - (6) Decay Test of Cabbage and Lettuce
- 3. Experimental Trial Reports related to Animal Husbandry

Comparative Experiments of Chicken

- 4. Water Clarification Test
- 5. Industrial Application

## 1. The Discharge of "Power of ZERO" Treated Water to a

### **River from the Youka Clarification Center**

■ Birds and fish rally around the discharge port when discharging treated water.



River cormorants and herons gather when discharging treated water.



Carps in the Maruyama River gather together at water discharge port when water discharge starts.

# 2. Agricultural Experimental Trial Reports

### (1) Rice Cultivation

### **Rice Planting Season has come!**

Here comes the rice planting season!

Why don't you feed the "Power of ZERO" to your paddy?

It's very simple. All you need to do is to feed 20 liters/1,000m2 of "Power of ZERO" after planting. It is so simple and fuss-free.

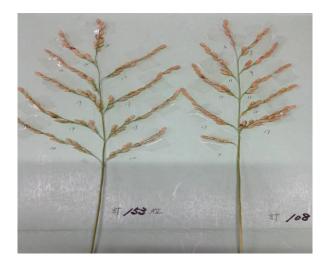
The rice planting season is only one chance to experience the power of the "Power of ZERO" in a year.

In this section, two actual cases of famous rice brand "Koshi-hikari" are reported.

1. 40-liters of "Power of ZERO" treated water was fed into Mr. T's paddy (2000 m2) located in Toyooka city.

Left rice ear grew on a paddy which "Power of ZERO" was fed. Right rice ear grew on a normal paddy.

Total of 153 grains were produced on the rice ear which grew on a paddy that "Power of ZERO" was fed and 108 grains were produced on the rice ear which grew on a normal paddy. Calculated simply, it shows a 41.6% increase in harvest.



Left rice ear grew on a paddy which "Power of ZERO" was fed. (153 grains) Right rice ear grew on a normal paddy. (108 grains)

2. After harvesting rice on Mr. Y's paddy in Youhu-city, he found that the rice bags were not enough.

Every year, he uses 28 bags of harvested rice, but this year he needed 38 bags. (Calculated simply, it shows 35.7% increase in harvest.)

Mr. Y said that when he polished the rice, the total amount was 1.5 times usual year.

He joked that this year if he fed 1.5 times the "Power of ZERO", it would be 1.5 times last year.



Left rice ear grew on a paddy which "Power of ZERO" has fed. Right rice ear grew on a normal paddy.

Expected Outcome:

Better survival. Prevent damage from insects. Tip resistance. Increase in revenue.

NOTE: Turn over the paddy while spraying 20 liters/1000m2 of "Power of ZERO". When feeding 20 litters/1000m2 of "Power of ZERO" from the water feeding port of the paddy, the temperature of the paddy will increase 1°C to 1.5°C.

# Report of 9th Year having NOT using Chemical Fertilizer and Agricultural Chemicals



Left: Chemical fertilizer and agricultural chemicals are used. Right: Only water 1 month after rice planting (July 2nd)

I say nitrogen, phosphoric acid and potassium carbonate are unnecessary as fertilizers!!

Many scholars and doctors of agriculture do not even know this fact. As a majority of the atmosphere is made up of nitrogen, plants take nitrogen from the air if they act like they should.

The reason can be told just by looking the above photo (Left: Chemical fertilizer and agricultural chemicals are used, Right: Only water). Leaf color of left rice is poisonous-looking green. Leafs on the right are bright green. How do you tell which is more natural and safer?

You can tell when you see the color of the weeds.

Because of excessive nurturing such as feeding unnecessary nitrogen fertilizer, calms and leaves of rice grow excessively without deep root growth. This deep green clearly indicates an over supply of nitrogen.

> On the other hand, the right rice is rooting widely and deeply in the ground. After that, the result completely reverses.



Left: Chemical fertilizer and agricultural chemicals are used. Right: Only water Before harvesting rice (September 12)

The paddy looks like above photo on September 12. It completely reverses.

The paddy where no chemical fertilizers and agricultural chemicals were used grows healthier than the one in which they were used.

We can say that actual nature is better than artificially added substances such as nitrogen, phosphoric acid, and potassium carbonate.

# (2) Verification Test of Growing Kale and overcoming injury by continuous cropping Outlive of Replant Failure

Growing Condition of Kales 25 Days after Nursery Planting

1) Left kale in the below picture: Grown on 70% of reused soil that was used for growing kale last year and 30% of additional soil (leaf mold 20% and reddish soil 10%)

NOTE: Since the kale has a tendency of replant failure, he thought it would be difficult to grow on 70% of reused soil. He just tried to do this.

- 2) Center kale was grown by feeding 100cc of 500times diluted aqueous solution of the "Power of ZERO" everyday (35 cm height).
- 3) Right kale was grown by only tap water (11 cm height).

From his 7-year experience, he is surprised that the kale fed only water grows normally.

NOTE: Basically speaking, it is said that kale is difficult to replant, but from this experimental test, he now understands that it can be replanted.





# (3) Growth Test of Carnation

# Carnations immersed into 500 time diluted aqueous solution of the "Power of ZERO"

Immerse carnations inside a pot into 500 time diluted aqueous solution of "Power of ZERO". When bubbles from the pot disappear, draw the carnations and pot from the solution. After that, spray 500 times diluted aqueous solution of "Power of ZERO".



Carnations immersed into 500 times diluted aqueous solution of "Power of ZERO" Normal Cultivation on the ground

# (4) Growth Test of Cabbage

### Growth Test of Cabbage Nursery Plant (Farm Family in Kumamoto-pref.)

Growth test was performed in a farm family cultivating cabbage by a granddad, grandkid and an employee.

Left cabbage nursery plant in the below picture was fed 800 times diluted aqueous solution of the "Power of ZERO". Right one was fed only water.

Few days later, the granddad said, there is no difference, let's stop the test.

--- The grandkid called me and said "My granddad can't see any difference between the cabbages, and he said he would like to stop the test."

--- I replied "Look at the root. The cabbage is growing its roots now. When feeding "Power of ZERO", plants grow roots first."



After lifting up the nursery plant out of the seeding box, they were surprised!

The grandkid called me excitedly after seeing the below photos.

Grandkid --- "These roots are very different!"

Granddad --- "I will stop the test and feed the "Power of ZERO" for every cabbage.

His first meaning of "Stop the test" had completely reversed.

At first, it meant "Stop feeding the "Power of ZERO", and then, it reversed to "Stop the test and feed "Power of ZERO" for every cabbage."

This decision is not good for me.

I would like to continue the test and reveal the differences between cabbages fed by "Power of ZERO" and normal water.

Below photos are roots of cabbages.



Left cabbage roots have been fed by "Power of ZERO". Right: Normal water.



Left cabbage roots have been fed by "Power of ZERO". Right: Normal water.

## (5) Prolong the Life of a Cut Flower

### ■ Life of a cut flower in a vase

### 1) Sakaki tree arranged in a home shrine on Dec. 31, 2014

After arranged, a 100-times diluted aqueous solution of the "Power of ZERO" is added for the amount of evaporated water.

The picture shows 420 days after the arrangement (Feb. 25, 2016)

The Sakaki tree still puts forth its new leaves.



#### 2) Sakaki tree and Pine tree arranged on Dec. 30, 2015

The picture shows 55 days after arranging the new Sakaki tree and Pine tree (Feb. 25, 2016).

- Sakaki tree still puts forth its new leaves.
- After 55 days, the pine tree is still green.



# 3) Bamboo plant arranged in Kadomatsu which was a pair of pine and bamboo decorations placed in front of the entrance of a residence during New Year's Day (Dec. 31, 2015).

After arranged, a 100-times diluted aqueous solution of "Power of ZERO" is fed for the bamboo plant and vase. These pictures show 55 days after arrangement (Feb. 25, 2016).



Almost two months have passed,
 the bamboo leaf is bright green and still
 puts forth its new leaves.





♦ Sanshu tree still puts forth its new leaves.

# (6) Decay Test of Cabbage and Lettuce

1) Decay test: From the left Natural cultivation cabbage, Organically-grown lettuce A, Super-natural cultivation cabbage, Organically-grown lettuce B

Super-natural cultivation cabbage is cultivated by using "Power of ZERO".



実験 キャベツ、レタス、自然、有機、超自然、有機、 2017.7.13

#### Start of test:

From the left Natural cultivation cabbage, Organically-grown lettuce A, Super-natural cultivation cabbage, Organically-grown lettuce B



19日間実験 キャベツ、レタス 、自然、有機、超自然、有機 2017.7.31

After a lapse of 19 days:

From the left Natural cultivation cabbage, Organically-grown lettuce A, Super-natural cultivation cabbage, Organically-grown lettuce B



45日間実験 キャベツ、レタス 、自然、有機、超自然、有機 2017.8.27

### After a lapse of 45 days:

From the left Natural cultivation cabbage, Organically-grown lettuce A, Super-natural cultivation cabbage, Organically-grown lettuce B

2) Decay test of Organically-grown Rice

Top picture: Start of the decay test (Dec. 29, 2008)

Left: Normal organically-grown rice

Right: Cultivated by using "Power of ZERO"

Bottom picture: After a lapse of 56 days (Feb. 23, 2009)

Left: Normal organically-grown rice Right: Cultivated by using the "Power of ZERO"

After a lapse of 56 days, left rice gets black moldy and has bad odor. The right rice doesn't have any odor and gets useful yeast cells. (Aspergillus oryzae).





## 3. Experimental Trial Reports related to Animal Husbandry

### **Comparative Experiments of Chicken**

September 18, 2014: Start of the experiment at a Cattle farm of Tajima agricultural high school in Hyogo pref. by using 20 young chickens that are 31 days old.

10 young chickens were grown in the cage and 500-time diluted aqueous solution of the "Power of ZERO" was fed, the other 10 young birds were grown in a cage in the normal way. November 29, 2014 Taking over the chicken (74 days old) November 30, 2014 Slaughter (75 days old)

The chicken meat is stored in a freezer for two weeks and then defrosted.



### ■ Comparative Experiments of Chicken grown by "Power of ZERO"

Left meat: Grown by feeding 500 time diluted aqueous solution of the "Power of ZERO" (chicken breast)

Right meat: Grown by normal way (chicken breast)

### **Comparative Experiments of Chicken meat**

### (liver and gizzards)

■ Comparative Experiments of Chicken meat (liver and gizzards) grown by using 500 times diluted aqueous solution of "Power of ZERO" and the normal way.



Chicken meat grown by feeding 500 times diluted aqueous solution of "Power of ZERO" (liver and gizzards)



Chicken meat grown by the normal way (liver and gizzards)

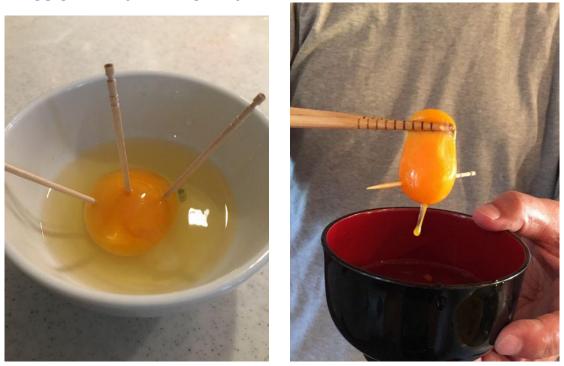
### Chicken egg which was grown by feeding enzyme water

- Left: Chicken egg grown by normal way: China (Inner Mongolia)
- Right: Chicken egg grown by feeding enzyme water: Japan





■ Chicken egg grown by feeding enzyme water: Japan



## 4. Water Clarification Test

### Pond in Konkou Temple in Youfu-city (Jodo-Shin Sect)

Algae is seriously proliferating in the pond, so 5 liters of "Power of ZERO" treated water was feed.

Apr. 18, 2013



### ■ A little later, algae decreases half.

Maybe the rain washed out the algae, finally the algae completely disappears.

The pond is clear as of Jan. 15, 2015.



# 5. Industrial Application

### Water Solubility of industrial Cutting Oil used in a factory in Kyoto pref.

When adding a 3% solution of the "Power of ZERO" in the used cutting oil (right), it changes as shown in the left.

(1) Bad odor disappears. (2) Bubbles fade (3) The oil cleans off.



Left: The oil after adding a 3% solution of "Power of ZERO". Right: Used oil

Economic effect in this iron factory:

- 1. Odor eliminating effect
- 2. The oil becomes reusable
- 3. Life of the oil is increased
- 4. Cost reduction (It seems to be used for half a year)

The total cost reduction may be 2 million yen (cost of oil and waste cost)

# V. Application for Bio Toilet

### Environmentally friendly Bio Toilet

### Features

- No water supply equipment required
- No need to pump up
- Easy maintenance

### Actual Examples

- Yohu-city: Yabukoi no machi park
   No pump up for 7 years
- Nanbu-cho, Tottori pref.: Akai iwa shrine
   No pump up for 4 years after installation
- Kami-cho, Hyogo pref.: Yabusora no eki
   No pump up for 2 years after installation



# VI. Power of ZERO

### How to use

#### Agricultural relations

Power of ZERO 800 times diluted aqueous solution

\* Seedlings of rice: Immerse whole seedlings into 800times diluted aqueous solution of "Power of ZERO".
 Immersion time: Approx. half a day
 Spray 800 times diluted aqueous solution of "Power of ZERO" on the settlement area, cultivate, and then planting the seedlings.

Spray 800 times diluted aqueous solution of "Power of ZERO" when sprinkling water.

#### Animal husbandry relations

Spray 100 times diluted aqueous solution of "Power of ZERO" in the barn for deodorization and purification of barn.

Feed 500 times diluted aqueous solution of "Power of ZERO" for drinking water.

Deodorization

Spray 100 times diluted aqueous solution of "Power of ZERO" \* for pinpoint deodorization, spray 10 times

- Cleaning/Washing
   Input 1/500 Power of Zero of the used water amount for cleaning and washing.
- Water purification
   Input 1/1000 Power of ZERO of the water tank or pond capacity
- Pet care

Prevention of pet's hair loss/Deodorization: Spray 1000 times diluted aqueous solution of "Power of ZERO"

Drinking water of pet: 100 times diluted aqueous solution of "Power of ZERO"

Purification of industrial cutting oil, Recycling
 Input 3% of Power of ZERO of the amount of deteriorated cutting oil

\* As "Power of ZERO" has versatile, please contact following for the detailed information. ZERO Co.,Ltd. TEL: 079-665-0123 FAX: 079-665-5005

# VII. Power of ZERO

# **Product Lineup**



Deodorant spray 100ml JY324 (tax included)



Power of ZERO Solid Soap JY540 (tax included) approx. 165g



Deodorant spray Deodorizer DO 320ml JY1,620 (tax included)



Power of ZERO Liquid Soap 400ml JY1,620 (tax included)



Power of ZERO 500ml JY2,160 (tax included)



Power of ZERO 1 L JY4,104 (tax included)



Power of ZERO 1 L JY4,104 (tax included)



Power of ZERO 2 L JY7,560 (tax included)

### Easy cleaning, how exciting! Dirt can be taken easily, how exciting!



### Feeling exhilarated and smiling!

🌸 How to use

Water bath and kitchen scale and mold,

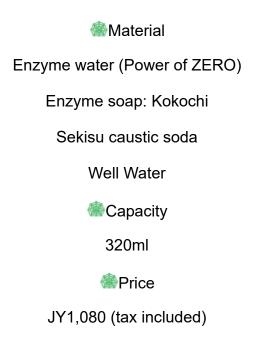
Yellowish dirt and urinary stones in the toilet

Please use it for removing dirt in a kitchen such as around the water supply faucet.

You can also use it for oil stains on things like your gas range and ventilation fan.

When dirt sticks hard, wait for a while and wipe it off.

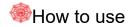
In addition, it can be used for laundry and dishwashing.





## Combustion efficiency improving liquid





Please spray it from the air intake pipe of a car to the air filter, piping to the engine. Please spray while seeing the effect. Please shake well to eliminate sediment before using it. If possible, please spray the inside of the air filter.



# Framing cosmetic soap (Mi-You)

**NO** preservatives, parabens, antioxidants and synthetic coloring are added.

Main ingredient: olive oil, water, coconut oil, sodium hydroxide, rice bran oil, sesame oil





JY3,024 (tax included)

# Herb gel (all in one gel)

With only this all in one gel, skin lotion or latex skin lotion are unnecessary.

**NO** preservatives, parabens, antioxidants or synthetic colorings are added.



JY10,800 (tax included) The package will be changed (60g, (left 50g))

Makomo shampoo (rinse, no need treatment) (JY6,048)



(These two products are OEM items)

## Products of Power of ZERO

Capacity 4L, 10L and 20L Power of ZERO are prepared.

Agricultural application is also provided. Capacity 4L, 20L and 1 ton are available.

We manufacture soap by using edible waste oil adding Power of ZERO. We sell new items with mug wort extract and citron extract added to this soap.

Yoka 107-5, Yoka-cho, Yabu-shi, Hyogo Prefecture, 667-0021, Japan

TEL: 079-665-0123 FAX: 079-665-5005 Along route 312 Adjacent facilities: Ministop Omori shop, JR Sanin Honsen Yoka Station

