



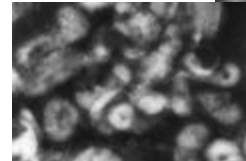
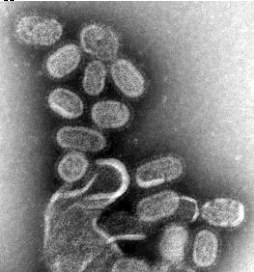
With AcademyTechnoScience Corp,
Opportunities Beyond the Bio Technology

**Deodorant , Anti-bacterial,
Mould-prevention**

“BACRON”

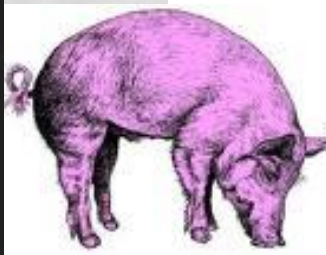
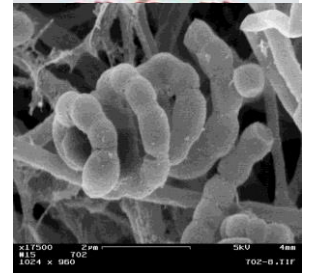
“BACRON”

Infectious disease that extends to the world



パンデミック 感染 大爆発

The Disaster of the Worst Pandemic Outbreak in Human History



Feature of BACRON



Superior anti-virus power

Demonstrating the superior effect in an anti-virus examination



Overwhelming anti-bacteria power

With mixture multi-amino acid and natural plant essence fluid, having strong anti-bacteria power, BACRON keeps indoor space clean.



Strong deodorant effect

With strong penetration power, BACRON will show deodorant power in the smell soaked into. BACRON will remove bad smell of life space such as cigarette, garbage, lavatory.



Reliable safety / security

Having natural origin raw materials as main ingredient , high level safety is certified in a skin irritation test and an oral toxicity test.

High Levels of Safety & Security by using Natural Product Origin

Skin irritation

In 72 hours P.I.I=0.0-0.21
Non irritation

Acute oral toxicity

In 14 days, LD50= > 2,000mg/kg
High levels of safety

Oral mucous membrane irritation

In 10 days
Non irritation

Allergic substance test for raw materials

Wheat • Peanut • Soba(buckwheat)
= Negative
High levels of safety



“BACRON”

Anti-bacteria, Deodorization Mechanism

Anti-bacteria

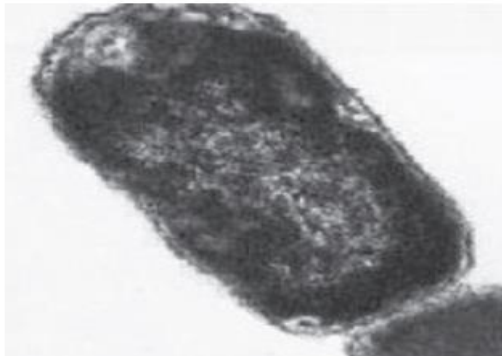
■ By the fine particle technology, compound amino acid, plant extraction thing, ingredient of cereals extraction, being connected by electric charge, will be absorbed/connected to bacteria cell membrane speedy, and will destroy a cell membrane and at the same time the active ingredient will deteriorate/destroy bacteria protein and deaden bacteria. Particularly, the active ingredient of fine particles ionization will promote penetration of anti-bacteria ingredient to a cell membrane greatly, showing a superior anti-bacteria effect even against strong bacteria and virus of tolerance.

Deodorization

■ By the fine particle technology, according to strong absorption/resolution activity, the compound amino acid, plant extraction thing, ingredient of cereals extraction, being connected by electric charge, smell ingredient will be dissolved, so the smell cannot be revived. At the same time, by anti-bacteria activity against bacteria causing bad smell, it will prevent recurrence of smell, showing longer deodorant effect.

Anti-bacteria and Anti-virus Mechanism

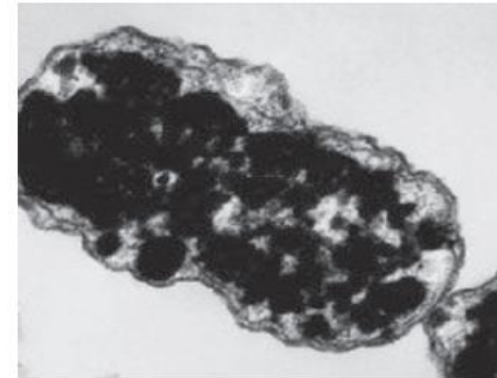
<Escherichia
Coli
O157>



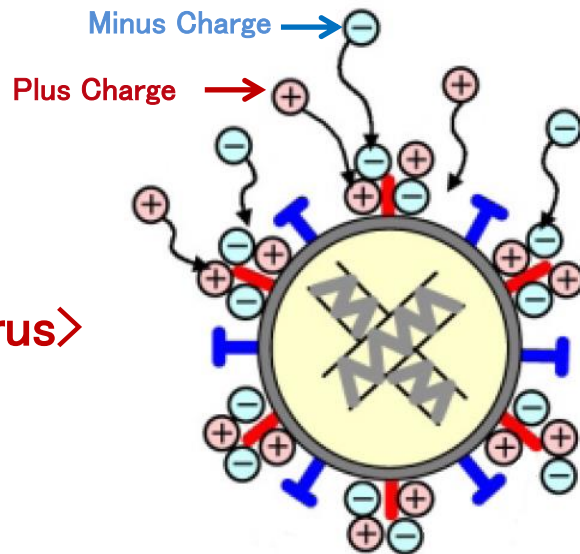
Cell Membrane
Destruction
Extinction



Absorption /
Penetration



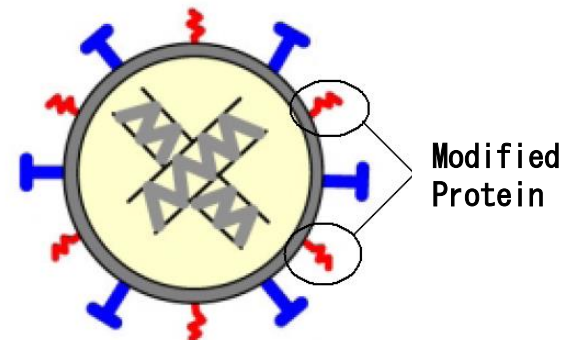
<Virus>



Protein
Modification
Extinction



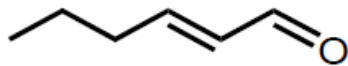
Absorption /
Penetration



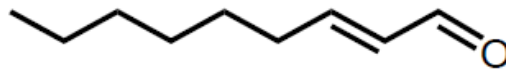
Bad-smelling Resolution Mechanism



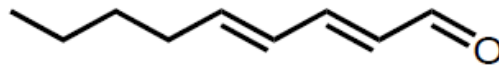
Bad Smell Ingredient



(Stink bug smell) trans-2-hexanal

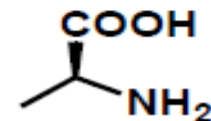
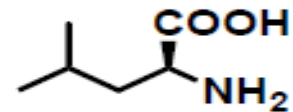
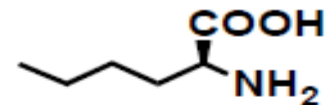


(Age-related body odor) trans-2-nonenal

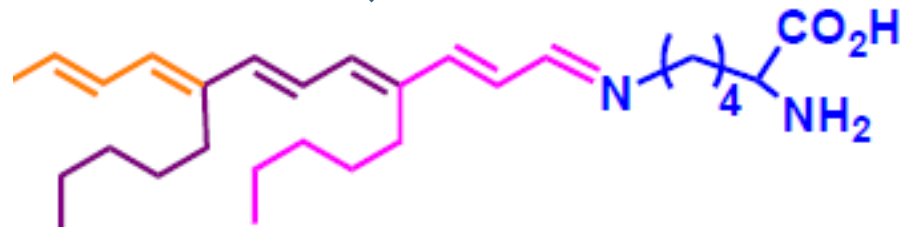


(Socks smell) trans,trans-2,4-nonadienal

BACRON Compound Amino Ingredient



+
Chemical Bond



*Chemical Bond

*Decomposition



Rapid Deodorization



Comparison with the other Products

	BACRON	Silver(Hg) ion	Ozone	Alcohol
Mechanism of Mould Prevention	Combine /Penetration/Destroy/Absorption by the mixture with ionized fine particle compounds	Oxidation by minus silver ion	Oxidation react	Destroy the cell membrane
Solubility for water	Soluble	Soluble by ion	Insoluble	Soluble
Odor of ingredient	Non smell	Non smell	Ozonic smell	Strong alcohol smell
Content	Unnecessary to be diluted	Un-economical	Necessary to be content control	Non effective by fixed content
Effect against other materials	Non deterioration for Metal and Rubber	Decrease effect by reacting to chloride ion	Deterioration for Metal and Rubber	Deterioration for modified materials
Deodorant power quickness	Prompt	Non	Prompt	Slightly prompt
Durability	Very long	Long	Non	Nonなし
Safety	Very safety	Safety	Danger	Flammable, Skin irritation
Install cost	*Unnecessary special equipment *Sprayable for wide area	Spray, Sprayer equipment	*Ozone equipment *Create equipment *Disposal equipment	Spray, Gel type
Mechanism of Deodorant	*Strong absorption/resolution for smell ingredient *Anti-bacteria activity for smell	Silver ion create radical which will combine smell ingredient	Oxidation react	Absorption/Penetration

Antimicrobial Activity Examination(part)

Bacillus name	Start of the Examination of Contrast	Elapsed Time	Result	Examined Organization Name
Escherichia Coli O-157, H7	3.3×10^5	In 10minutes	<100(undetected)	Japan Food Research Laboratories
New virus H1N1	3.85E+06	In 10minutes	<0(undetected)	Chubu university student life health science part
Salmonella Enterica	1.0×10^6	In 10minutes	<100(undetected)	Japan Food Research Laboratories
Pseudomonas aeruginosa	4.2×10^{50}	In 10minutes	<100(undetected)	Japan Food Research Laboratories
Feline calici-virus ※Substitute a noro virus	Log TCID ₅₀ /ml 7.0	In 5minutes	<3.5(undetected)	Japan Food Research Laboratories
SARS virus	5×10^6 TCID ₅₀	In 5minutes	Undetected	People's Liberation Army of China Academy of Military Medical Science, Microbial Disease Research Center
Pathogenicity bird influenza virus	1.0×10^7	In 10minutes	<0(undetected)	People's Liberation Army of China Academy of Military Medical Science, Microbial Disease Research Center
Colon bacillus	8.1×10^5	In 10minutes	<100 (undetected)	Japan Food Research Laboratories
Yellow staphylococcus	4.0×10^5	In 10minutes	<100 (undetected)	Japan Food Research Laboratories

Antimicrobial Activity Examination(part)

Bacillus name	Start of the Examination of Contrast	Elapsed Time	Result	Examined Organization Name
K. Pneumoniae	4.0×10^6	In 1minutes	<10 (undetected)	Japan Shimane Environment & Health Public Corporation
Staphylococcus Epidermidis	5.8×10^6	In 1minutes	<10 (undetected)	Japan Shimane Environment & Health Public Corporation
Legionella	3.1×10^6	In 1minutes	<10 (undetected)	Japan Shimane Environment & Health Public Corporation
Methicillin-resistant Staphylococcus aureus; MRSA	1.6×10^6	In 1minutes	<10 (undetected)	Japan Shimane Environment & Health Public Corporation
Salmonella enterica	2.5×10^6	In 1minutes	<10(undetected)	Japan Shimane Environment & Health Public Corporation
Escherichia coli O157:H7	3.1×10^6	In 1minutes	<10(undetected)	Japan Shimane Environment & Health Public Corporation
Pseudomonas Aeruginosa	5.8×10^6	In 1minutes	<10(undetected)	Japan Shimane Environment & Health Public Corporation
Escherichia Coli	2.7×10^6	In 1minutes	<10(undetected)	Japan Shimane Environment & Health Public Corporation
Canjida Albicans	6.7×10^5	In 1minutes	<10(undetected)	Japan Shimane Environment & Health Public Corporation
Trichophyton	1.4×10^5	In 5minutes	<100(undetected)	Japan Shimane Environment & Health Public Corporation
Bacillusu Subtilis	6.0×10^6	In 1minutes	<100(undetected)	Japan Shimane Environment & Health Public Corporation

Antimicrobial Activity Examination(part)

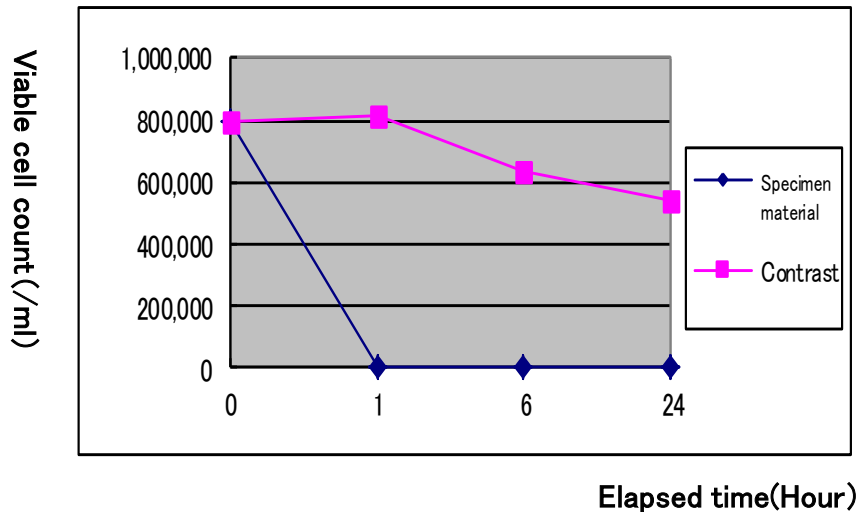
Bacillus name	Start of the Examination of Contrast	Elapsed Time	Result	Examined Organization Name
Foot-and-Mouth disease virus, fmdv	LD50 × 10 ^{-8.0}	In 10minutes	<0 (undetected)	The House of Chinese Agriculture Science
Porphyromonas gingivalis ATCC33277	7.0 × 10 ⁶	In 1minutes	<100 (undetected)	Japan Shimane Environment & Health Public Corporation
Multi-drug resistant Pseudomonas aeruginosa	4.3 × 10 ⁶	In 1minutes	<100 (undetected)	Japan Shimane Environment & Health Public Corporation
Vancomycin-resistant Enterococcus	5.8 × 10 ⁶	In 1minutes	<100 (undetected)	Japan Shimane Environment & Health Public Corporation
(MRSA)Methicillin-resistant Staphylococcus aureus	2.1 × 10 ⁶	In 1minutes	<100 (undetected)	Japan Shimane Environment & Health Public Corporation
Skin Irritation examination	Indicator of an OECD chemical toxic examination	In 72 hours	Non-irritation-related (P.I.I=0.0-0.21)	The House of Korea Living Environment Examination (KEMTI)
Acute oral toxic examination	"KFDA200560 medical supplies toxic examination indicator"	In 14 days	RatLD50= 2,000mg/kg or more	The House of Korea Living Environment Examination (KEMTI)
Skin Sensitization-related examination	KFDA200560 medical supplies toxic examination indicator	In 40 days	Skin sensitization-related nothing	National Gangwon University
Variation origin examination	KFDA200560 medical supplies toxic examination indicator	In 20 days	Negative is not accepted))	National Gangwon University

Deodorant Examination(part)

Material name	Rregulation density	Solubility	Smell	Deodorant effect of BACRON
Ammonia	2.000	89.9g / water 100g	Smell such as raw sewage	⊙
Methyl Mercaptan	0.040	slightly	Smell such as the onion rotted	⊙
Hydrogen sulfide	0.060	437cc/ water 100g	Smell such as the egg rotted	⊙
Methyl sulfide	0.050	Insoluble	Smell such as the cabbage rotted	○
Methyl di-sulfide	0.030	-	Smell such as the cabbage rotted	○
Tri-methyl amine	0.020	Soluble	Smell such as the fish rotted	⊙
Acet-aldehyde	0.100	∞	Stimulating grassy-smelling smell	⊙
Propion-aldehyde	0.100	16.15g / water 100g	Stimulating sweet-sour smell that burnt	○
Normal butyl-aldehyde	0.030	3.7g / water 100g	Stimulating sweet-sour smell that burnt	⊙
Iso butyl-aldehyde	0.070	8.8g / water 100g	Stimulating sweet-sour smell that burnt	○
Normal barrel-aldehyde	0.020	Slightly	Sweet-sour smell that burnt to be choked on	○
Iso barrel-aldehyde	0.006	Slightly	Sweet-sour smell that burnt to be choked on	⊙

Antimicrobial Activity Examination(part)

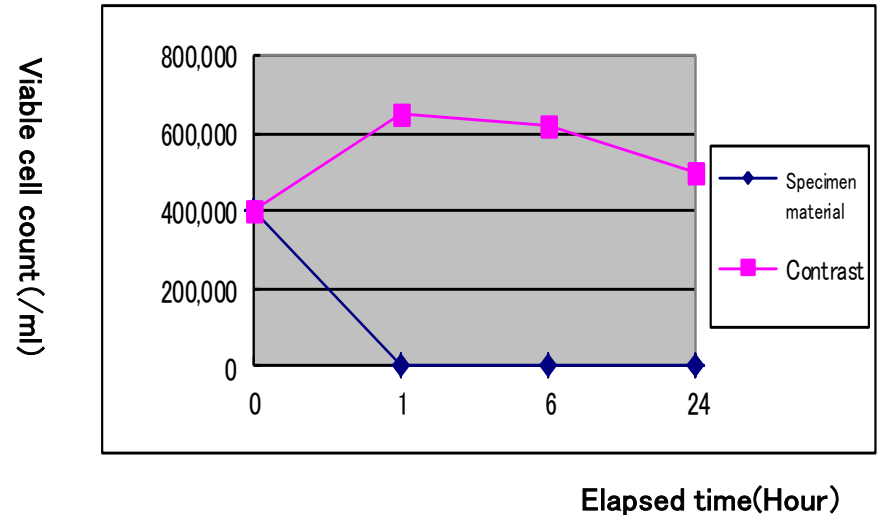
■ Salmonella



Specimen material: BACRON

Contrast: Purification Aqua

■ Staphylococcus aureus

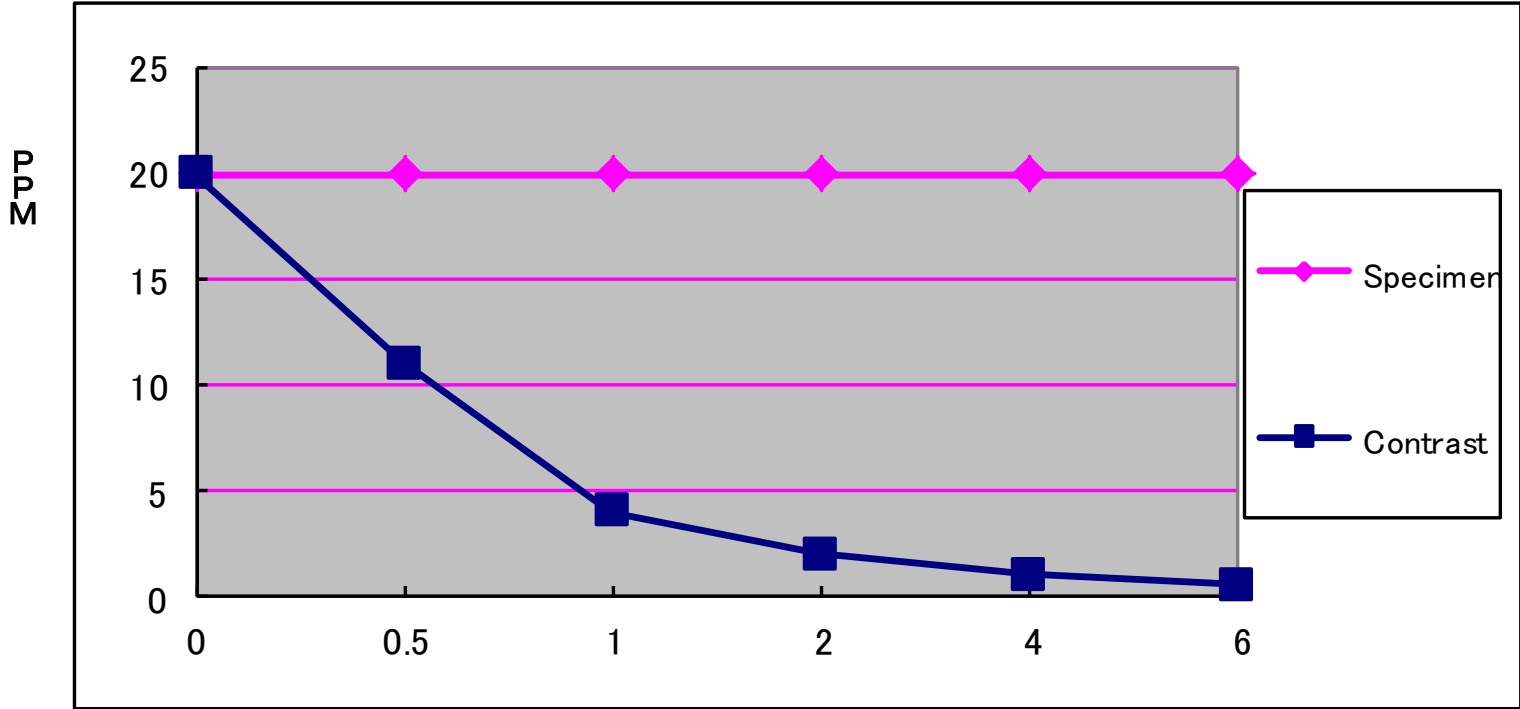


Specimen material: BACRON

Contrast: Physiological Saline Solution

Tested by: Japan Food Research Laboratories

Formaldehyde Deodorization Examination



Specimen : BACRON

Elapsed time(Hour)

Contrast : Purification Aqua