

BERRIANT

- Purpose for Anti-microbial agent (for feminine hygiene) -

Applicable products of BERRIANT

Personal care : Feminine hygiene(Feminine cleanser, cream, cleaning wipes, tissue, lotion, gel etc)

Cosmetics : Toner, Cream, Essence, Emulsion etc

What is BERRIANT ?

BERRIANT is developed for those who have genital problems like inflammation, bad smell, unhygienic secretion, etc. BERRIANT is derived from nature as an anti-microbial agent. It has an excellent effect on decreasing the microorganisms (*P.aeruginosa*, *P.mirabilis*) in human genital organs.

* [Patent:KR 10-2010-0062858]

Cosmetic composition for feminine cleanser containing *Rubus coreanus* extract as active ingredient

About

"*Rubus coreanus*
Miquel"



Common name	Korean raspberry, Korean bramble
Latin name	<i>Rubus coreanus</i> Miquel
INCI Name	Water / Butylene Glycol / Rubus Coreanus Fruit Extract
Main Ingredient	Malic acid, Tartanic acid, Isocitric acid, Astragalin
Story	<i>Rubus coreanus</i> is a wild black raspberry that is native to Korea. In Asia it is used for making herbal medicines and health supplements to enhance stamina for men and cure disease in women.

"Special care for your secret zone makes you 'special'"

1. Anti-microbial activity of BARRIANT, against Microorganisms in genital organs



Pseudomonas aeruginosa (*P. aeruginosa*) is a common bacterium that can cause disease in humans. It is found in soil, water, skin flora, and most man-made environments throughout the world.



Proteus mirabilis (*P. mirabilis*) is a Gram-negative, facultative anaerobic, rod shaped bacterium. It shows swarming motility, and urease activity. *P. mirabilis* causes 90% of all 'Proteus' infections in humans.

2. Safety check of BERRIANT, tested by Ames test . NRR assay . MTT assay . Repeat Insult Patch Test

SPECIFICATION

INCI Name
Colour
Water
Butylene Glycol
Preservative
Packaging unit
Shelf life
Dosage

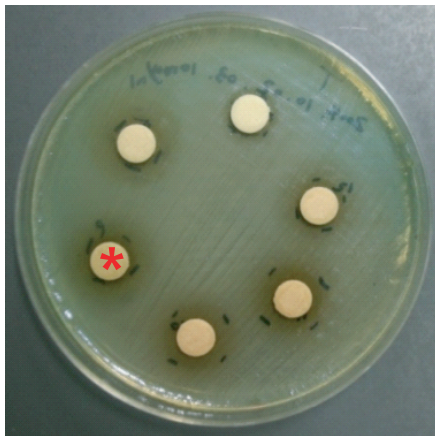
Water / Butylene glycol / Rubus Coreanus Fruit Extract
Brown Liquid
less than 40%
60%
Non-added
5kg / 10kg / 20kg
2 years
2% ~ 7%

Main Biological Effects for Cosmetics

● Anti-microbial activity test for Vaginal microorganism

1. Paper disc diffusion assay

Sample	Concentration	Bacterial growth inhibition zone (mm)	
		<i>P. mirabilis</i>	<i>P. aeruginosa</i>
Control (DMSO)	-	-	-
Rubus Coreanus Fruit extract	500 µg/disc	18 ± 1.32*	10.5 ± 0.78*



< *P. mirabilis* >



< *P. aeruginosa* >

2. Broth dilution assay

Sample	MIC 90 (%)	
	<i>P. mirabilis</i>	<i>P. aeruginosa</i>
Control (Aqueous BG)	18.7	12.9
BERRIANT	2.5	6.3

As a result of paper disc diffusion assay, we confirmed bacterial growth inhibition effect of *Rubus Coreanus* Fruit extract. Broth dilution assay showed a significant anti-microbial effect of BERRIANT as a MIC 2.5%, 6.3% against each microorganism. These results indicate that BERRIANT might be used as a natural anti-microbial agent against vaginal microorganisms.