Globule® SW-20

Natural raw deodorizing materials from eucalyptus

Eucalyptol, the main component of Globule® SW-20 (1,8-cineol),
reduces odors through chemical reactions
with body odors and bad odors found in rooms and toilets.

RILIS CO., LTD.

www.rilis.co.jp/en/

Product Information

Product Name Globule®SW-20

Base This product is a highly safe water-soluble raw deodorizing material prepared by mixing essential oils and organic acids—obtained from the leaves of *Eucalyptus globulus Labillardiere* and other closely related plants (*Myrtaceae*) through steam distillation—with surfactant, water, and other ingredients.

Features

Appearance : Colorless to slightly yellow transparent liquid
Odor : Eucalyptus-like scent
pH : 3.5 to 5.5
Specific Gravity : 0.900 to 1.100(20°C)
Solubility : Easily soluble in water and ethanol
Application : Miscellaneous goods, cosmetics, quasi-drug products (composed of raw materials listed in 2006 Japanese Standards of Quasi-drug Ingredients)

Deodorizing Effect

The 1,8-cineole and the malodorous gas undergo chemical reactions such as Van Der Waals force or hydrogen bonding to reduce the concentration of the malodorous gas.

5 g of Globule® SW-20 [deodorizing effect after 30 minutes]

Malodorous Component (ppm)	Deodorization Rate (%)
Ammonia (150)	99.7<
Trimethylamine (20)	98.5<
Acetic acid (50)	98.0<
Isovaleric acid (50)	97.6<
n-Butyric acid (50)	94.0<
Nonenal (5)	82.4
Diacetyl (50)	87.4
Pelargonic acid (10)	91.0
Skatole (1)	92.5

Intended Use

Toilets, rooms, refrigerators, pet areas, kitchens, bathrooms, entrances, body odors

Usage Concentration

A blending ratio of about 5% is recommended.

Antiseptic/Antifungal Performance

Antiseptic/antifungal effects have been confirmed in aqueous solutions of at least 0.5%.

Sample

Globule®SW-20 (0.5% aqueous solution)　Globule®SW-20 (1.0% aqueous solution)

Experiment Method

Preservatives-Effectiveness Test (Japanese Pharmacopoeia 17th Edition)

Test bacteria

Escherichia coli	(E.c)	NBRC 3972
Pseudomonas aeruginosa	(P.a)	NBRC 13275
Staphylococcus aureus	(S.a)	NBRC 13276
Candida albicans	(C.a)	NBRC 1594
Aspergillus brasiliensis	(A.b)	NBRC 9455

Inoculation and Storage

20 g of the sample for each test bacterium isplaced in a sterile vial and inoculated with 0.15 mL of the test bacterium solution (10^5-10^6 per 1 g of the sample). Each vial is stored at 22.5°C, and the viable cell count is measuredon the 7th, 14th, 21st, and 28th day.

Viable Cell Count Measurement

SCDLP Agar Medium Pouring for bacteria, and Sabouraud Dextrose Agar with Lecithinand Polysorbate Medium Pouring for fungi(yeast, mold).

Test Results

Changes in sample bacteria count afterinoculation

Sample	Inoculated bacteria	Inoculated bacteria count (per gram)	Bacteria count (per gram) 7th day	14th day	21st day	28th day
Globule®SW-20 (0.5% aqueous solution)	E.c	8.9×10^5	$<10^1$	$<10^1$	$<10^1$	$<10^1$
	P.a	4.8×10^5	$<10^1$	$<10^1$	$<10^1$	$<10^1$
	S.a	7.9×10^5	$<10^1$	$<10^1$	$<10^1$	$<10^1$
	C.a	3.9×10^5	4.8×10^2	1.0×10^1	$<10^1$	$<10^1$
	A.b	1.6×10^5	1.4×10^5	1.5×10^5	9.4×10^4	8.7×10^4
Globule®SW-20 (1.0% aqueous solution)	E.c	8.9×10^5	$<10^1$	$<10^1$	$<10^1$	$<10^1$
	P.a	4.8×10^5	$<10^1$	$<10^1$	$<10^1$	$<10^1$
	S.a	7.9×10^5	$<10^1$	$<10^1$	$<10^1$	$<10^1$
	C.a	3.9×10^5	1.6×10^2	1.0×10^1	1.0×10^1	$<10^1$
	A.b	1.6×10^5	9.2×10^4	9.0×10^4	8.6×10^4	8.2×10^4

E.c Escherichia coli　P.a Pseudomonas aeruginosa　S.a Staphylococcus aureus
C.a Candida albicans　A.b Aspergillus brasiliensis

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