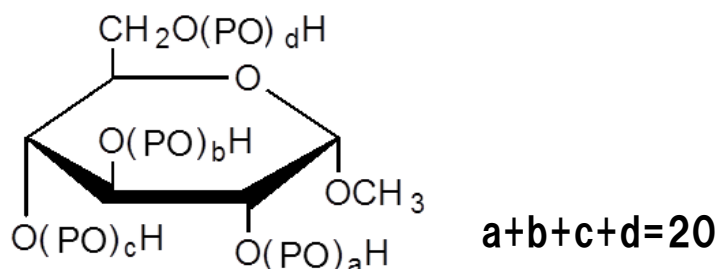


Skin penetration enhancing agent with Preservative effect

MACBIOBRIDE® MG-20P

1 MACBIOBRIDE® MG-20P

Structure



Concept

Skin penetration enhancing agent with Preservative effect

INCI

PPG-20 METHYGLUCOSE ETHER

中文INCI

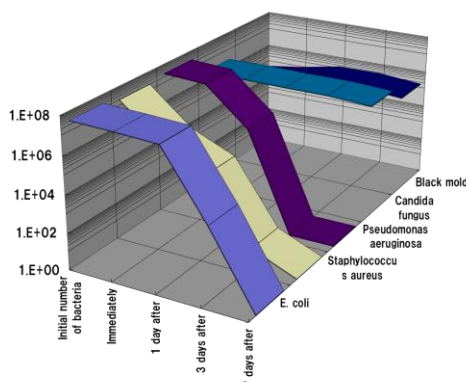
PPG-20甲基葡糖

2 Characteristics

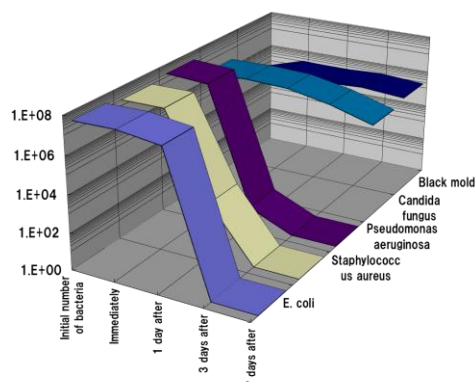
- It can provide a smooth film feeling.
- It shows preservative effect, that reduces the dosage of preservatives.
- It has the skin penetration enhancing effect of water soluble active agent.

3 Preservative effect

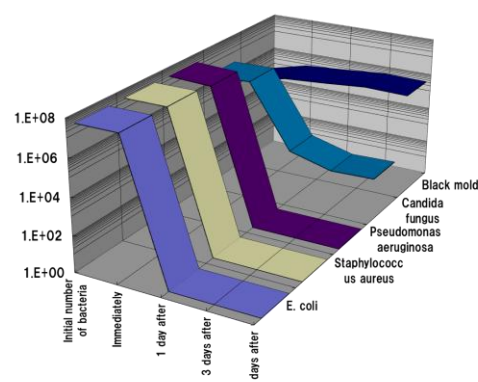
<Sample A>
MG-20P : 3%
(pH5.5)



<Sample B>
MG-20P: 3%+
PENTYLENE GLYCOL: 2%
(pH5.5)



<Sample C>
MG-20P: 3%+
ETHYLHEXYLGLYCERIN: 0.1%
(pH5.5)



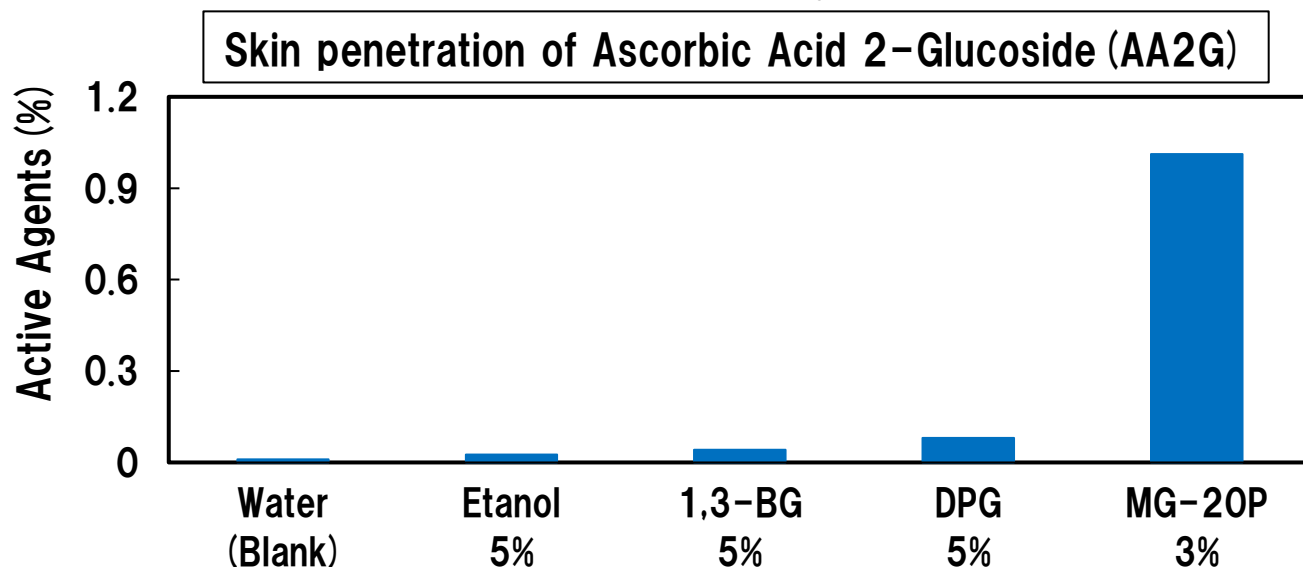
MG-20P has preservative effect that reduces the dosage of preservatives.

4 Skin penetration enhancing effect

➤ Test method (Diffusion cell array system)

1. Prepare donor solution (AA2G + aqueous solution containing each additives) and receptor solution (phosphate buffer: pH 7.2).
2. Permeate donor solution using the artificial membrane (STRAT-M®: epidermal model) for 8hr.
3. Measure concentration of the AA2G in the receptor solution by HPLC.
(STRAT-M is registered trademark of Merck KGaA.)

$$\text{Penetration of active agents (\%)} = \frac{\text{Concentration of active agents on receptor side (\%)}}{\text{Concentration of active agents on donor side (\%)}} \times 100$$



MG-20P promotes the penetration of active agents.

5 Application – Whitening serum

	Product name	INCI	wt%
A	–	BUTYLENE GLYCOL	20.0
	–	PENTYLENE GLYCOL	2.0
	–	CITRIC ACID	0.02
	–	XANTHAN GUM	0.05
	–	WATER	72.23
B	–	TRANEXAMIC ACID	2.0
	MACBIOBRIDE® MG-20P	PPG-20 METHYGLUCOSE ETHER	3.0
	SOLUBULE™ GS-01	PPG-13-DECYLTETRADECETH-24	0.1
	LIPIDURE® -PMB	POLYQUATERNIUM-51	0.5
	GLYMOIST™ EH	ETHYLHEXYLGLYCERIN	0.1
Total			100

【Procedure】 1. Weight ingredients for phase A and mix uniformly at R.T.

pH : 6.5

2. Add phase B and mix uniformly .



NOF CORPORATION

Head Office

Yebisu Garden Place Tower, 20-3 Ebisu 4-chome, Shibuya-ku, Tokyo 150-6012

TEL.+81-3-5424-6700 <http://www.nof.co.jp/>

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