



Activonol-6

NON-IRRITATION, ANTI-MICROBIAL INGREDIENT

- Odorless
- Non-irritation
- Anti-microbial effect



Abstract **Odorless Anti-microbial Ingredient**

Activonol-6 is a safe anti-microbial ingredient with low MIC.

Formulators can use Activonol-6 as an alternative preservative in formulation.

As like as other diols, Activonol-6 has two hydroxyl group and linear carbon chain so it has good moisturizing effect and spreadability on the skin.

Due to the good compatibility, Activonol-6 is easy to apply to formulation and alternative preservative in cosmetics.

Technical Information

INCI Name	1,2-Hexanediol
CAS No.	6920-22-5
Appearance	Transparent liquid
Aspect	Colorless, Odorless
Solubility	Water soluble
Recommended dosage	1 ~ 3 %

Skin Safety **Human Skin Patch Test**

: Activonol-6 under the single application patch test for 48 hrs to female adults subjects can be considered no irritant.

Test Sample	Concentration	Result
Activonol-6	20 % in DW	No irritant

(IECK-SAF-1210167)



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Efficacy

1) Anti-microbial effect

(1) MIC test (CTFA method)

MIC (%) for	Activonol-6 (%)
E. coli	1.5
P. aeruginosa	2.0
S.aureus	2.5
C.albicans	2.5
A.niger	1.0

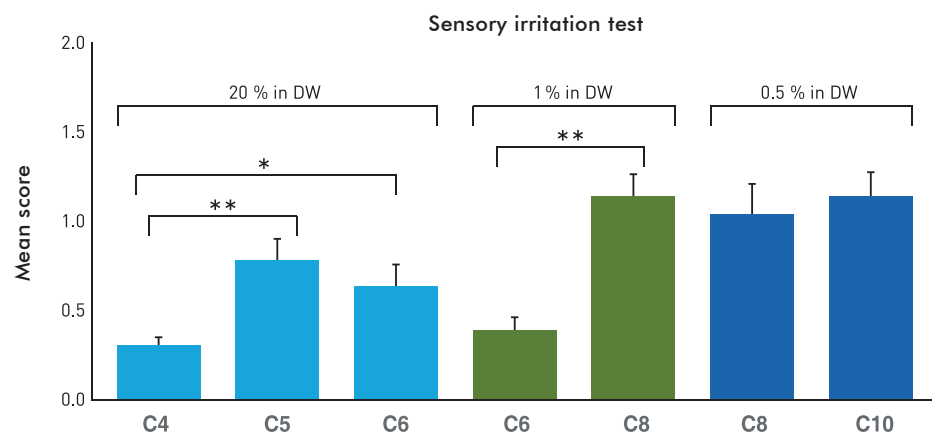
(2) Challenge test (O/W emulsion – 2.5% of Activonol-6, KFSA method)

Days		Inoculation (cfu/ml)	1	4	6	8	11	15
Microorganism	Bacteria	4.5×10^6	7.0×10^3	ND	-	-	-	-
	Yeast	4.9×10^5	6.1×10^3	ND	-	-	-	-
	Mold	4.4×10^5	5.6×10^3	ND	-	-	-	-

*ND : Not Detected

Activonol-6 showed an excellent anti-microbial effect to all spectrum at 2.5 % dosage.

2) Sensory skin irritation



Comparison of sensory skin irritation of 1, 2-alkanediols.
**P < 0.01 [ANOVA and unpaired t-test].

Sensory skin irritation potential showed a positive correlation with the alkane chain length.

REF: International Journal of Cosmetic Science, 2011, 33, 421-425