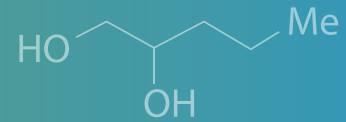




# Activonol-5

## ODORLESS, MULTI FUNCTIONAL GLYCOL

- **Anti-microbial Effect**
- **Excellent Moisturizer**
- **Excellent Cosmetic Solvent**



### Abstract **Odorless, Multi-functional Glycol**

Activonol-5 is an excellent moisturizer and cosmetic solvent with colorless and odorless features. It has a good anti-microbial effect by itself and excellent synergistic effect combination with other glycols and preservatives. Activonol-5 can enhance water resistance and act as a co-emulsifier reducing particle size. As a multi-functional ingredient, Activonol-5 can be applied to alternative preservative, moisturizer and cosmetic solvent.

### Technical Information

INCI Name	Pentylene Glycol
Technical / Other name	1,2-Pentanediol
CAS No.	5343-92-0
Appearance	Transparent liquid
Aspect	Colorless, Odorless
Solubility	Water soluble
Recommended dosage	3 ~ 6 %

### Skin Safety **Human Skin Patch Test**

: Activonol-5 under the single application patch test for 48 hrs to female adults subjects can be considered no irritant.

Test Sample	Concentration	Result
Activonol-5 in O/W emulsion	5 %	No irritant

(IECK 14-K169363)



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## ODORLESS, MULTI FUNCTIONAL GLYCOL

### Efficacy

#### 1) Anti-microbial effect

##### (1) MIC test (CTFA method)

MIC (%) for	Activonol-5 (%)
E. coli	3.0
P. aeruginosa	5.0
S.aureus	5.0
C.albicans	5.0
A.niger	3.0

##### (2) Challenge test (O/W cream - 5.0% of Activonol-5, CTFA method)

Name	Inoculation (cfu/ml)		D 7		D 14		D 21		D 28	
	Bacteria	Fungi	B	F	B	F	B	F	B	F
Activonol-5 (5%)	5.0 x 10 <sup>6</sup>	1.3 x 10 <sup>6</sup>	6.7	2.1	6.7	6.1	6.7	6.1	6.7	6.1

\*CTFA Criteria : Bacteria ≥3 and maintain, Fungi ≥1 and maintain

**Activonol-5 showed the anti-microbial effect to all spectrum at 5 % dosage.**

##### (3) Synergetic anti-microbial effect (ActivON Method)

	Activonol-5 3.0 % Activonol-6 0.6 %	Activonol-5 3.0 % Activonol-6 0.8 %	Activonol-5 3.0 % Activonol-6 1.0 %
E. coli	0	0	0
S. aureus	TNTC*	TNTC	0
P. aeruginosa	0	0	0
C. albicans	0	0	0

\* Too numerous to count

**Activonol-5 has shown synergistic effect to all bacteria and yeast when it combined with Activonol-6. Especially, they have synergy effect to S.aureus that uses just 3 % of Activonol-5 and 1 % of Activonol-6.**

#### 2) Multi-functional effects

- (1) Moisturizing effect : Excellent skin moisturizer
- (2) Enhance water resistance in sunscreen
- (3) Co-emulsifier : Reducing particle size of emulsions

REF: R.Pillai et al, SOWF-Journal, vol 131, pg 13-22 (2005)