



**YEDİTEPE UNIVERSITY**  
**FACULTY OF ENGINEERING**  
**DEPARTMENT OF GENETICS AND BIOENGINEERING**

**REPORT**

**BIOLOGICAL ACTIVITY TEST RESULTS REPORT**

**REPORT REGISTRATION NO AND DATE:** 43-MD-2012

**30.04.2012**

**SAMPLE REGISTRATION NO:** 2012-049

**THE SAMPLE WAS SENT BY:** Governorship of Istanbul, Provincial Directorate of Health

**NAME AND ADDRESS OF THE MANUFACTURER COMPANY OF THE SAMPLE:** Gül Biyoloji Laboratuvarı Sanayi Ticaret Limited Şirketi

**MARKETING AUTHORIZATION HOLDER:** Gül Biyoloji Laboratuvarı Sanayi Ticaret Limited Şirketi

**TEST PURPOSE:** Biological Effectiveness

**TEST CONDUCTOR:** Yeditepe University, Faculty of Engineering Department of Genetics and Bioengineering

**DENEY DATE:** 26.04.2012/28.04.2012

**NAME OF THE TESTED PRODUCT:** MANOCHOL EP-70 Alcoholic Hand Disinfectant

**TYPE OF THE TESTED PRODUCT:** Biocide

**COMPOSITION OF THE PRODUCT:** Ethyl Alcohol % 45, İsopropyl Alcohol % 25

**TESTING METHOD:** NCCLS M2-M9, NCCLS M44-A

**ENVIRONMENT CONDITIONS FOR THE TEST:** Bacteria: 37 °C, Yeast: 37 °C, Fungus: 25 ± 3°C

**RESULTS:** They are presented in the attached table

**COMMENT:** Biocidal product samples named as “**MANOCHOL EP-70 Alcoholic Hand Disinfectant**”, sent by “Governorship of Istanbul, Provincial Directorate of Health” were received on 25.04.2012 to conduct biological activity analysis. The product was tested on 15 different microbial species, listed in the appendix, (13 bacterial, 1 Yeast, 1 Fungal species) in Yeditepe University, Faculty of Engineering, Department of Genetics and Bioengineering. According to the results obtained, the biocidal product named as “**MANOCHOL EP-70 Alcoholic Hand Disinfectant**” which was examined for its biological activity was found to exert antimicrobial activity on all microorganisms tested.

Prof. Fikretin SAHİN  
Chair of Biocidal Laboratory



**YEDİTEPE UNIVERSITY**  
**FACULTY OF ENGINEERING**  
**DEPARTMENT OF GENETICS AND BIOENGINEERING**

ANTIMICROBIAL TEST RESULTS			
TEST DATE: 26.04.2012	CONTROL GROUP	SAMPLE NAME	BIOLOGICAL ACTIVITY
NAME OF MICROORGANISM	PC (Ofloxacin) (Nystatine) (mm)	MANOCHOL EP-70 (mm)	
<i>Escherichia coli</i> ATCC 25922	28	12	+
<i>Staphylococcus aureus</i> ATCC 25923	24	10	+
<i>Enterococcus faecalis</i> ATCC 29212	18	10	+
<i>Pseudomonas aeruginosa</i> ATCC 27853	18	8	+
MRSA(Methicillin-resistant <i>Staphylococcus aureus</i> )	22	10	+
VRE(Vancomycin-resistant <i>Enterococcus</i> )	10	10	+
<i>Klebsiella pneumoniae</i> ATCC 13883	32	12	+
<i>Yersinia enterocolitica</i> ATCC 27729	30	10	+
<i>Proteus vulgaris</i> ATCC 13315	20	8	+
<i>Bacillus cereus</i> ATCC 11778	18	10	+
<i>Enterococcus faecium</i>	16	8	+
<i>Listeria monocytogenes</i> ATCC 15313	16	10	+
<i>Acinetobacter baumannii</i>	12	10	+
<i>Candida albicans</i>	20	10	+
<i>Aspergillus niger</i>	24	12	+