**The Turkish Journal of Occupational / Environmental Medicine and Safety**



**Vol:1, No:1(2), 2017 Web:** [http://www.turjoem.com](http://www.turjoem.com/) **ISSN : 2149-4711**



 **SS-013.**  **Determination of the most prevalent pool microalgae in order to revise the test microorganisms in the algicidal assays**

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Pool chemicals constitute an important group of biocidal products and they are expected to effectively inhibit the algal growth in different types of pools. Two green algae (*Scenedesmus quadricauda, Oocystis parva or O.solitaria*) and one cyanobacterium (*Phormidium minnesotense*) should be used as test organisms in biocidal (algicidal) activity assays according to the current regulations in Turkey. The predominant pool microalgae and Cyanobacteria species can greatly differ among different geographical areas. Therefore the aim of this study was to determine the most abundant algal species in different geographical areas of Turkey. A total of 22 pool water samples were collected from 18 different locations during Spring-Summer period of 2015. The samples were investigated by microscopy and DGGE (Denaturing Gradient Gel Electrophoresis) regarding to the presence of algal and cyanobacterial species. Sixteen of the 22 samples yielded positive results in DGGE analysis and presence of the algae and cyanobacteria samples were also confirmed by microscopic examinations. Four different bands were identified and sequenced from DGGE gel. Two clades were appeared in the phylogenetic tree build with the sequences of DGGE bands. One includes *S.quadricauda* and *O.parva* while the other clade consist of our sequences and *P. minnesotense*. According to our microscopy observations all samples contain unicellular Cyanobacteria but not any *Chlorophyta* species. It is clear that the test organisms in the algicidal assays should be revised including the most abundant local strains. In the light of our findings we would suggest an addition of unicellular cyanobacteria besides filamentose cyanobacterium P. minnesotense as test organism in the current regulations.

**Keywords:** Pool chemicals, regulations, standard test organisms, microalgae, DGGE

**Keywords:** Pharmacy, Students, Biocidal, Awareness

TURJOEM , 2017 , 1 ,1 (2)