

**Wyczarska-Kokot, J. Impact of Disinfection Method on Chloramine Content in Swimming Pool Water. *Ochrona Srodowiska* 2014, Vol. 36, No. 2, pp. 37–42.**

**Abstract:** Chloramine concentrations in pool water from a selected recreational object, with toddler swimming facilities, were compared in terms of water disinfection method. In the first stage the chloramine content was analyzed in the pool with water treated using sodium hypochlorite disinfection system. In the second stage, UV disinfection (low pressure UV lamp) was added to the system, while in the third stage, following removal of the UV lamp, so called 'shock' pool water disinfection with sodium hypochlorite was applied. The physicochemical and bacteriological quality of pool basin water was assessed, with the main focus on variations in chloramine concentrations depending on free chlorine content and disinfection method used. The disinfection method applied in the second stage of the studies allowed reaching the chloramine concentration below the acceptable threshold ( $0.2 \text{ gCl}_2/\text{m}^3$ ) while maintaining free chlorine content in the range of  $0.3$  to  $0.4 \text{ gCl}_2/\text{m}^3$ . The study results proved that pool water disinfection methods based solely on sodium hypochlorite use (I and III stage) did not give satisfactory results and the average chloramine concentration exceeded acceptable threshold by 65%.

**Keywords:** Recreational object, water treatment, microorganism inactivation.