



P72 : APPLICATIONS OF DISINFECTANTS FOR DRINKING WATER AND SWIMMING POOL WATER

Orhan Tuncer¹ Yüksel Söyleriz²

¹Orhan Tuncer (Medical Technologist, MSc)

General Directorate of Health Research of the Ministry of Health of the Republic of Turkey, Ankara

²Yüksel Söyleriz (Chemical Engineer, MSc) The Department of Environmental Health of Public Health Institution for Turkey of the Ministry of Health of the Republic of Turkey, Ankara

Abstract

In this study, the examples of disinfectants for swimming pool water and drinking water to be used in the European Union and Turkey are assessed.

Method

In this study, national and international legislation and practices in the countries of the European Union are reviewed.

Findings The By-Law on the Biocidal Products was published in the Official Gazette and entered into force on 31st Dec, 2009) in parallel with Directive 98/8/EC concerning the Placing of Biocidal Products on the Market. Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products will repeal and replace Directive 98/8/EC and will be valid in EU Member States as of 1 September 2013. For the drinking water disinfectants, Product Type 5, and for the swimming pool disinfectant, the Product Type is 2. As long as the risk assessment for any active substance in a given product type listed in Annex II to Commission Regulation (EC) No 1451/2007 and Annex II to 1062/2014 EU Commission Regulation to corresponding to Annex A to By-Law on the Biocidal Products has not been finished, biocidal products containing the active substance cannot be authorized in any Member State as biocidal products. Until a decision at EU level is taken, only the national legislation (if any) will be applied in the EU-Member States. If the result of the risk assessment of active substances is acceptable, the active substances is included in Annex I to Directive 98/8/EC (article 4, 9(2) Union list of

Regulation (EU) No 528/2012 or Annex IA to Directive 98/8/EC (Annex I to Regulation (EU) No 528/2012). If any active substance is not included in annex I or IA to Directive 98/8/EC (or Union list of approved active substances or Annex I to Regulation (EU) No 528/2012), biocidal products containing the active substance cannot be authorized in any EU-Member State as biocidal products.

The main criteria in the selection of disinfectants are their performance against target organisms, the PH, the side products, disinfectant residual, operation safety and its economy. Article 10 of the By-law on Drinking Water Intended for Human Consumption states that if chlorine are used for disinfection of drinking-water, free chlorine level at the endpoint measurements will be 0.2- 0.5 mg /L. The application in European Union Member States of disinfectants for drinking water and swimming pool water are as follows: first stage, the risk assessment of the active substances for drinking water and pool disinfectants should result as an acceptable risk level to human health and the environment and should be then included in the Union list or Annex I to Regulation (EU) No 528/2012. Second stage is that a disinfectant product containing the listed active substances should be authorized according to the relevant articles of the Regulation. For instance, hydrogen peroxide (Cas No.7722-84-1) for product types 2 and 5 will not be authorized in Germany until a decision at EU level is taken.

Result

If the risk assessment of active substances for product types 2 and 5, which are listed in Annex II to Commission Regulation (EC) No 1451/2007 and Annex II to 1062/2014 EU corresponding to annex A to By-Law on the Biocidal Products, has not been finalized, a biocidal products containing the active substances are evaluated by national experts on technical and scientific basis in terms of human health and the environment until a decision at EU level is taken

Keywords: Product Types 2 and 5, disinfectants of drinking water and swimming pool water