APA symposium: defining occupational exposure limit to prevent benzene’s adverse health effects

On 11th September, the Aromatics Producer Association (APA) organised a half day symposium on the current revision of the occupational exposure limit (OEL) for benzene by the EU. The current binding OEL for benzene in the EU is 1 ppm as set in the Carcinogens and Mutagens Directive (CMD), although some countries have already implemented lower values in their legislation. The main conclusion of the work of the Lower Olefins and Aromatics (LOA) Consortium benzene workgroup is that the quality of epidemiological studies should be thoroughly taken into account when defining a benzene’s OEL for a substance because this will have an impact on the value obtained.

The European Commission launched the process to review this value in 2017, and in March 2018, ECHA’s Committee for Risk Assessment (RAC) proposed to lower the benzene OEL to 0.05 ppm. This was defined derived by applying a high safety assessment factor due to uncertainties in the various benzene studies analyzed by RAC. The Lower Olefins and Aromatics (LOA)
Consortium benzene workgroup, made up of toxicology experts (S. Williams, R. Schnatter, M. Rooseboom, A. Dalzell, N. Aygun Kocabas, J. Twisk, F. Faulhammer, E. Rushton, V. Ostapenkaite, C. North and P Boogaard) has been working over the past year to derive a health and science-based OEL, by assessing thoroughly the quality of all the studies available.

During the symposium, Prof M. Zeegers presented the basic notions and requirements needed to ensure the quality of epidemiological studies, while Prof P. Boogaard presented the RAC opinion as it was published. S. Williams and Dr R. Schnatter presented the results of their assessment that takes into account the quality of the studies. They concluded that, given the likely mode of action, there are no adverse health effects, including risk of cancer, at and below exposures of 0.25 ppm / 8h.

A. Morris from DG Employment then explained the next steps in the setting of an OEL for benzene and the legislative process that should be completed by the end of 2021. The meeting was chaired by Dr. F. Faulhammer and the panel discussion was led by Dr. M. Rooseboom.

The presentations are made available on the APA page of the Petrochemicals Europe’s website. Moreover, all presentations have also been recorded and will be available for viewing via weblink. Anyone interested in watching one or more of the presentations can contact Olga Sicora (osi@cefic.be) to get the link and the password.

The LOA benzene work group also intends to write a scientific paper on this work and submit it to a scientific journal with peer review by the end of the year.