ECHA proposes to eliminate emission class E2 and to limit emissions to 0.1 ppm Public consultation on formaldehyde emissions from consumer products

The European Chemicals Agency (ECHA), based in Brussels, launched a public consultation on further restricting formaldehyde emissions from consumer products, including woodbased panels, building elements and furniture, on 20 March 2019.

Comments on the ECHA proposal can be submitted until 20 September. In the proposal, entitled "Restriction on formaldehyde, released from articles", which stipulates a limit of 0.124 mg/m³ ascertained in a testing chamber used in accordance with EN 717-1, the ECHA said that it had been guided by the WHO recommendation of 0.1 mg/m³ below which adverse health effects can be ruled out according to the WHO. The ECHA's Committee for Risk Assessment (RAC) and the Committee for Socio-Economic Analysis (SEAC) will be involved in screening and analysing the comments submitted during the consultation. These two committees are slated to provide final assessments by March 2020. The ECHA will then forward the joint assessment of the two committees to the European Commission, which will then make a decision about whether to add this limit to Annex XV of the REACh Regulation.

The proposal now put up for discussion by the ECHA originates in efforts made by the European Commission, which had asked the authority to prepare a restriction dossier in accordance with Annex XV on 20 December 2017. The ECHA had previously presented an initial investigation report on formaldehyde and formaldehyde emissions in March 2017. The ECHA proposal of 0.124 mg or 0.1 ppm corresponds to emission class E1, which has long been required in several European countries, including Austria, Germany, Italy and Sweden. The ECHA hopes that the proposal will definitively ban manufacturing and marketing of emission class E2 wood-based panels, which is still permitted in other countries. The EU Construction Products Directive, which has been in force since 1 July 2013, also still allows for class E2. Moreover, the ECHA believes that its proposal will work towards EU-wide harmonisation of different formaldehyde rules that apply in each country. In the view of the ECHA, the voluntary commitment launched by the wood-based panel industry among others is not the right way forward.

The 77-page Annex XV restriction report published by the ECHA on 20 March describes the current situation, evaluates the potential impact on formaldehyde emissions, outlines the risk factors and then draws conclusions. An 85-page annex provides additional background information. In drawing up its analysis, the ECHA focused on the prevailing use of formaldehyde and formaldehyde resins in woodbased panels, construction products and other sectors of industry, such as vehicle and aeroplane construction. Formaldehyde applications in biocide and cosmetic applications, which are already regulated by the Biocide Products Regulation (BPR) EU 528/2012 and the Cosmetic Products Regulation EU 1223/2009, were not taken into consideration. The ECHA noted that these applications account for just a small share of formaldehyde consumption within the EU.

The Annex XV restriction report also details formaldehyde production and consumption in the EU. The ECHA looked at 73 production facilities in 21 EU member states for the year 2015. Twelve of these plants were located in Germany, ten in Italy, six each in Poland and Spain, five each in Belgium and the UK and four in the Netherlands. Fourteen other countries had between one and three facilities each. All of these formaldehyde sites have integrated downstream converting capabilities, generally to make resin. Another eleven formaldehyde production sites have integrated industrialscale plants to make methylene diphenyl diisocyanate (MDI) or polyol. Formaldehyde

production in the EU-28 and in Norway and Switzerland was listed at 3.2 million tonnes on a 100% basis and at 8.6 million tonnes as a 37% solution in 2015. When compiling these figures, the ECHA used data from the Formacare Sector Group within the European Chemical Industry Council (Cefic).

According to the ECHA, some 41% of this total ends up in the production of ureaformaldehyde (UF) resins, 95% of which is then used in the wood-based panel industry. The manufacturing of phenol formaldehyde (PF) resins accounts for roughly 9% of European formaldehyde consumption. About 60% of these PF resins is used to make wood-based panels, insulating materials and laminates. Some 7% of European formaldehyde is turned into melamine formaldehvde (MF) resin. The main area of application for MF resins is melamine film for laminating wood-based panels. Altogether 95% of MF resins made in Europe end up in the wood-based panel industry.

Consequently, almost 60% of European formaldehyde is used in UF, PF and MF resins, which are principally used to make wood-based panels and construction products. Polyols, MDI, polyoxymethylene/ polyacetal (POM) and other applications make up the other 40% or so.

Polyols' share of total consumption is listed at 11%, while MDI accounts for 8%, POM for 7% and other applications for 17%. Formaldehyde imports into the EU from third countries play virtually no role. At 20,000-30,000 tonnes per year, they did not even reach 1% of total consumption between 2015 and 2017.

