

Olefins and Chemical Regulation in Europe: REACH

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Abstract

REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) is the European Union's chemical regulation for the management of risk to human health and the environment. This regulation entered into force in June 2007 and required manufacturers and importers to register substances produced in annual quantities of 1000 tonnes or more by December 2010. Depending on the type of registration, required information included the substance's identification, the hazards of the substance, the exposure arising from the manufacture or import, the identified uses of the substance, and operational conditions and risk management measures applied or recommended to downstream users. Among the content developed to support this information was Derived No-Effect Levels or Derived Minimal Effect Levels (DNELs/DMELs) for human health hazard assessment and Predicted No Effect Concentrations (PNECs) for environmental hazard assessment and Exposure Scenarios for exposure and risk assessment. Once registered, substances may undergo a variety of reviews by the European Chemicals Agency (ECHA) or Member State authorities and be subject to requests for additional information or testing as well as authorization and restrictions. To manage the REACH registration and related activities for the European olefins and aromatics industry, the Lower Olefins and Aromatics REACH Consortium was formed in 2008 with administrative and technical support provided by Penman Consulting. A total of 135 substances are managed by this group including 26 individual chemical registrations (e.g. benzene, 1,3-butadiene) and 13 categories consisting of 5 to 26 substances. This presentation will describe the content of select registrations prepared for 2010 in addition to the significant Post-2010 activities. Beyond REACH, content of the registrations may also be relevant to other European activities, for example consideration of worker DNELs/DMELs for occupational exposure level setting, discussion of this aspect will be presented for 1,3-butadiene.