

REACH CASE STUDY

Chemical Safety Assessment of Heavy Fuel Oils and production of a Chemical Safety Report

The new regulations for chemicals registration and assessment in the EU, REACH, entered into force earlier this year and required that industry carry out chemical safety assessments (CSA) for all substances that have not been assessed already. Although the CSA and related Chemical Safety Report are not required for some time yet, some organisations have already started their preparations for this requirement. A CSA was produced for a major petroleum product, Heavy Fuel Oil (HFO), to the requirements of the REACH regulations and according to recommendations in the Reach Implementation Project Reports. Essentially the CSR produced was a condensed Risk Assessment Report that has less detailed information on quantitative exposure than a conventional RAR.

The complexity of the mixtures of hydrocarbons present in HFOs means that a straightforward single substance assessment is not possible, so the hydrocarbon blocking approach was used. This approach examines the components of the HFO and assigns them to blocks that encompass a range of physicochemical properties and effects. Each block is then dealt with as a separate entity in respect of fate, behaviour and effects and the overall effect of the substance is determined by summing the effects associated with the blocks using a weighting based on the proportion that each block contributes to the overall composition of the HFO.

This approach was applied successfully in the full risk assessment carried out for Gas Oils and has been adapted for use on HFOs in the CSA.

CONCAWE