

# Detergents

2002/0216(COD) - 26/05/2009 - Follow-up document

Pursuant to Regulation (EC) No 648/2004 on detergents, the Commission presents its report on anaerobic biodegradation. This report concerns the anaerobic biodegradation of detergent surfactants with a focus on linear alkylbenzene sulphonate (LAS) which is a widely-used surfactant that is reported to be poorly biodegradable under anaerobic conditions. The report covers the properties of LAS obtained from the scientific literature, risk assessment reports on the risks associated with the use of LAS in detergents, and a review of anaerobic testing methodology.

Although no reports have been received from Member States of any environmental concerns due to surfactants since the introduction of the Detergents Regulation, it has been noted that some surfactants do accumulate in sewage sludge where they remain until the sludge is disposed of, for example as a fertiliser in agriculture, where re-exposure to aerobic conditions allows aerobic biodegradation to proceed to completion.

The environmental fate and behaviour and the toxicity of surfactants must be considered for evaluating the effectiveness of the existing legislation in managing the overall risk. The Commission approached this task in two stages: first to establish the existing knowledge base and identify gaps, second, to fill those gaps. The first stage was completed in 2005; the second has taken from 2006 to 2009.

The report notes that the Commission has taken a number of steps to establish a knowledge base sufficient to review the anaerobic biodegradation of surfactants. The results of a study conducted in 2003 on anaerobic biodegradation together with the findings of risk assessment studies of major surfactants which were conducted by Industry in 2007 on a voluntary basis and the outcome of their evaluation by SCHER, were discussed with delegates from Member States and industry associations.

Following a systematic evaluation of the risks from the presence of non-degradable surfactants in various anaerobic compartments, it was concluded that, in contrast to the adverse effects observed in the absence of aerobic degradation, the lack of anaerobic degradation does not seem to be correlated with any apparent risk for these environmental compartments. It can therefore be concluded that anaerobic biodegradability should not be used as an additional pass/fail criterion for the environmental acceptability of surfactants such as LAS which are readily biodegradable under aerobic conditions.

Concerning the recently produced data on the terrestrial toxicity of LAS leading to an increased PNEC<sub>soil</sub> (which reduces the PEC/PNEC ratio and thereby diminishes the predicted environmental risk from LAS in anaerobic sludge and soil) this should be better substantiated as requested by SCHER in its opinion of 2008.

The remaining concerns therefore focus on the possible environmental toxicity of surfactants, rather than on their biodegradability. **At present, however, there is no evidence that would justify legislative measures at EU level, such as regulatory limit values for LAS in sludge.**

The information requirements of the REACH registration dossiers will ensure that comprehensive data on the health and environmental effects of detergents ingredients - including surfactants such as LAS - will be submitted by industry to the European Chemical Agency (ECHA). In fact, for substances manufactured or imported in quantities of 1 000 tonnes or more per year registrations are due by December 2010 and chemical safety reports as part of the registration dossiers will need to demonstrate the safe use throughout their life cycle. The REACH registration information should therefore be sufficient to decide whether restrictions on certain surfactants in detergents formulations are needed on environmental grounds in

addition to those already imposed by the Detergents Regulation. If so, the restriction procedure of REACH would be the most appropriate instrument to impose such restrictions.