

# Imminent deadline prompts action

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The first key deadline of the European REACH legislation is fast approaching. By 1 December 2010 at the latest, the risk assessment for 5000 to 9000 of the most commonly used substances must be submitted. TNO is helping both industry and government in what is a monumental task by any standards, focusing on innovations that enable the risk assessment to be performed more quickly and efficiently.

REACH (*Registration, Evaluation and Authorisation of CHemicals*) came into force at the end of 2006, laying out clearly and to a tight schedule what producers and importers of chemical substances have to do to maintain their substance on the market. The term 'safe use' is at the heart of REACH and the responsibility for this lies emphatically with the chemical industry. The 1 December deadline applies to the high-volume substances and substances already known to pose possible risks. Until recently, a maximum of ten substances were risk assessed each year; with a target of 5% of all substances, ECHA now aims to evaluate from 250 to 450 substances in detail – compared with some ten 10 per year in the preceding decade to 2008.

Jos Mossink, head of TNO's Food and Chemical Risk Analysis Department, explains what the REACH work involves for companies, the government and TNO itself. 'So far we do not know enough about the risks that many hazardous substances could pose to employees, consumers and the environment. REACH compels the chemical industry and government to make a tremendous leap forward. If you were to test all substances in the normal way, you would be busy for hundreds of years, and you would require an unacceptably high number of lab animals. The major innovative challenge is to design methods that will enable a broadly accepted assessment of thousands of substances per year, with around 30,000 scheduled in total.'

## ALL HANDS ON DECK

The approach involves the systematic and worldwide search for available and 'storable' data on substances, in collaboration with European research institutions and industry. Secondly, by looking at the relationships between substances (*read-across*), a responsible decision can be made about the need to test (or not) certain substances. Finally, in the long term, new methods must be sought to make tests more straightforward and even superfluous, thereby restricting the need for animal testing.

Doeke van der Schaaf, TNO's product manager for REACH: 'We are getting all hands on deck in the fight for a more efficient risk assessment: intelligent testing strategies, new exposure models like the *Advanced REACH Tool (ART)*, and generic and specific exposure scenarios. Our customers are among the world's top fifty chemical producers. We also represent companies because REACH compels them to cooperate and provide information on substances to other companies in the production chain; not every company has enough manpower to do this alone. Our independent support in these matters appeals to both industry and government alike.'

TNO's technical and scientific input focuses not only on the toxicology and human exposure but also on the communication about substances among companies and the socio-economic analysis of using substances. TNO is also collaborating on the European Guidance that explains the practical application of the REACH legislation.

Info: [jos.mossink@tno.nl](mailto:jos.mossink@tno.nl), [doeke.vanderschaaf@tno.nl](mailto:doeke.vanderschaaf@tno.nl)