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IN THIS ISSUE:

- ◆ **GERMANY:** Waste incineration - practice outperform the law.
- ◆ **The NETHERLANDS:** Absence of general problem in the Netherlands with so-called PBT (persistent, bioaccumulative and toxic) substances in the chlorine production cycle, nor with substances occurring in chlorine products
- ◆ **GERMANY:** PVC can be used technologically sensibly and cost-efficiently in many application fields.
- ◆ **SPAIN:** A study on window frames and energy savings shows that the PVC window with 30% recycled material presents the lowest energy consumption (1,740 kWh) and CO₂ emissions (730 kg).
- ◆ **EUROPEAN UNION:** PVC can be used technologically sensibly and cost-efficiently in many application fields.

FOREWORD

This newsletter aims to provide a platform for objective and scientific information on a subject which was scrutinised by regulatory authorities, namely the life cycle of PVC and its applications. In this issue, some of the latest studies or reports related to the PVC life cycle are reported. We hope that this will help you to find your way in this debate.

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Germany: Waste incineration – practice outperform the law.

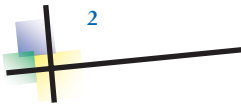
Since June 1, 2005, untreated waste is no longer landfilled in Germany. And because of stringent regulations, waste incineration plants are no longer significant in terms of emissions of dioxins, dust, and heavy metals. For many contaminants, the limits applicable to waste incineration plants in Germany are more stringent than would be possible for other state-of-the-art facilities subject to legislation. Since 1996, all facilities have complied with stringent emissions levels. Furthermore, the results demonstrate that in waste incineration plants emissions for all pollutants currently fall well below the limit values of the 17th BImSchV. The real figures are between 0.001 and 0.01 ng TU per cubic metre of exhaust air for dioxin while the limit is 0.1 ng TU per cubic metre air.

*Reference: Waste Incineration – A Potential Danger? German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. September 2005
http://www.bmu.de/english/waste_management/downloads/doc/35950.php - http://www.bmu.de/files/pdfs/allgemein/application/pdf/muellverbrennung_dioxin_en.pdf*

The Netherlands: Absence of general problem in the Netherlands with so-called PBT (persistent, bioaccumulative and toxic) substances in the chlorine production cycle, nor with substances occurring in chlorine products.

The problem of harmful micropollutants originating from chlorine plants is limited as revealed a thorough study conducted by the Institute of Environmental Studies of the Free University of Amsterdam for the Ministry of Housing, Spatial Planning and the Environment (VROM), the Ministry of Transport, Public Works and Water Management (Verkeer en Waterstaat), the Dutch Chemical Industry Association (VNCI), the Foundation for Nature Conservation and Environmental Protection (Stichting Natuur en Milieu). The main conclusion was that, thanks to effective measures, industry has managed to keep emissions into the water and air well under control, and to limit the emissions that do occur. However, more attention does need to be paid to treatment plants that are out of service, and to the possible presence of PBT substances in certain chlorine products. However, in a limited number of cases, chlorinated micropollutants have been found that, for the most part, were present in low concentrations.

Reference: The complete reports, accounts and a summary of the study and the results are available (in English or Dutch) on CD ROM. Ministry of VROM, Wim van der Weegen +31 (0)70-3393986. The reports can be consulted at http://www.ivm.falw.vu.nl/Research_projects/index.cfm/home_subsection.cfm/subsectionid/34DDA988-D26F-40AB-A8FFE742D928CD25



Germany: A technology study on the processing of PVC concludes altogether to the result that PVC is a material which can be used technologically sensibly and cost-efficiently in many application fields.

The study was carried out by the well established Fraunhofer Institute, a research and test institute. According to the conclusion of this study, "the desire to replace PVC with other materials led in many cases, from a technological point of view, to suboptimal solutions".

Reference: Technologiestudie zur Verarbeitung von Polyvinylchlorid (PVC). A. Franck, M. Knoblauch, B. Sandoz. Study commissioned by PlasticEurope Deutschland to Fraunhofer-Institut für Chemische Technologie. http://www.pvch.ch/cgi-bin/news/technologiestudie_pvc_verarbeitung.pdf

Spain: A study on window frames and energy savings shows that the PVC window with 30% recycled material presents the lowest energy consumption (1,740 kWh) and CO2 emissions (730 kg).

A study has been carried out by the Professor Baldasano's team of the Catalonian Polytechnic College (UPC). It's the first part of a larger one including different applications in building sector, i.e. pipes, roofing and cables. In all the cases analysed, the highest percentages of energy consumption (between 42 and 97%) correspond to energy losses through the window. The energy consumption figures in the stages of extraction and production of materials are considerable for aluminium windows (up to 52% of the total); this percentage is lower for PVC (14%) and wooden (4%) windows. The PVC window with 30% recycled material presents the lowest energy consumption (1,740 kWh) and CO2 emissions (730 kg). The PVC window with no recycled material presents consumption of 1,780 kWh and CO2 emissions of 742 kg. Next would come the wooden window with double glazing,

Reference: Estimate of energy consumption and CO2 emission associated with the production, use and final disposal of PVC, aluminium and wooden windows. JM Baldasano Recio, R. Parra Narváez, P. Jiménez Guerrero Report PVC-Ven-200501-2, April 2005. Department de Projetes d'Enginyeria Universitat Politècnica de Catalunya. Environmental Modelling Laboratory Barcelona, Spain.

EU: Opinion of Scientific Committee on Medical Products and Medical Devices on medical devices containing DEHP plasticised PVC; Neonates and other groups possibly at risk from DEHP toxicity.

Mechanisms for adverse effects of DEHP do exist in rodents, but these do not appear to be of great significance in non-human primates and that the evidence that such mechanisms could be operative in humans is lacking. Nevertheless, the levels of DEHP that induce toxic effects in rodents are of the same order as the exposure experienced by some neonates in clinical practice. However there are no reports concerning any adverse effects in humans following exposure to DEHP-PVC, even in neonates or other groups of relatively high exposure. At the present there is no evidence that any of other groups do experience DEHP related adverse effects. However, the lack of evidence of causation between DEHP-PVC and any disease or adverse effect does not mean that there are no risks. In view of the lack of a full analysis of all risks associated with potential alternative materials, at this moment no specific recommendations can be made to limit the use of DEHP in any particular patient group. Nevertheless it is strongly proposed that detailed studies are performed and further data collected in order to monitor this situation. On the basis of the evidence presented in this report, no Tolerable Intake Value for DEHP in medical devices can be recommended. Full account must be taken of the actual benefits of these materials and the balance between these benefits and risks.

Reference: Opinion on Medical Devices Containing DEHP Plasticised PVC; Neonates and Other Groups Possibly at Risk from DEHP Toxicity. Adopted by The Scientific Committee on Medicinal Products and Medical Devices on 26 September 2002 - http://europa.eu.int/comm/health/ph_risk/committees/scmp/documents/out43_en.pdf

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