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Scientific data on health and the environment.

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FOREWORD

This newsletter aims to provide a platform for objective and scientific information on a subject often scrutinised by political or 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 de-bate. Previous editions of the newsletter are still available on request.

AUSTRIA: Sustainability assessment of flooring (PVC versus linoleum)

The study provides a figure-based comparison of four products (PVC and linoleum, both in two different qualities). Economic and ecological effects along the life cycle of each product were investigated, applying cost-benefit analysis as a measuring tool. Special attention was paid to the use phase, where the cleaning properties of the products were identified as the crucial parameter

The study proved that products can only be assessed comprehensively by considering all effects along the whole life cycle. Having regard to this, a quite large amount of data (LCA, cleaning properties, economic costs along the life cycle, waste management options, statements on plasticisers, etc) was accumulated.

Reference: Sustainability Assessment of Flooring (PVC versus Linoleum). GUA- Gesellschaft für umfassende Analysen GmbH office@gua-grou.com www.gua-group.com.

EUROPE: PVC recovery options—environmental and economic system analysis.

PE Europe Gmbh made an environmental and economic analysis of different processes and waste recovery systems using mixed cable waste, a representative large waste stream for PVC waste. The processes compared were municipal incineration, 2 options of feedstock recycling, mechanical recycling via the Vinyloop solubilisation process and landfilling was used as reference. The Vinyloop mechanical process shows best performance on primary energy recovery and is economically competitive with landfilling while other options entail higher costs. The results for other impact categories need to be considered as only feedstock processes allow a separation of lead while Vinyloop reuses it in the recycled resin.

Reference: EU PVC recovery options – environmental and economic system analysis. Commissioned by Vinyl 2010. PE Europe GmbH http://www.pe-europe.com; e-mail of the co-author j.kreissig@pe-europe.com.

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AUSTRALIA: The Australian PVC industry has made a public commitment to address environmental issues associated with its products.

This voluntary Product Stewardship Commitment (PSC) mirrors the European industry's moves to promote improved environmental practices in production, use and disposal of PVC. It has been developed after fifteen months' consultation with the Australian federal government's Environment Australia and has been signed by 33 industry members. The first two aims are to phase out cadmium processing by December 2003 and schedule a longer-term phasing out of lead stabilisers by the same date. Other plans include measures to reduce manufacturing emissions and promote end-of-life impacts of PVC products such as waste management and recycling.

Reference: http://www.vinyl.org.au/product/commitments.cfm and http://www.vinyl.org.au/art_pdfs/PStewardship.pdf.

USA: SCDC Biomonitoring study confirms phthalate exposure is far below levels that could affect humans.

The expanded study confirms that the average doses of all the measured phthalates are well below the safety levels established by government regulatory agencies - levels that already have a built-in safety factor of 100 to 1,000. While there are variations among the various groups measured, even the highest levels reported by the CDC – the so-called 95th percentile - equate to exposures well below safety levels. In particular the CDC data show that the median exposure to dibutyl phthalate (DBP), a phthalate found in small quantities in personal care products, is 100 times below the very conservative safety levels set by regulators.

Reference : CDC's National Report on Human Exposure to Environmental Chemicals Centers for Disease Control and Prevention http://www.cdc.gov/exposurereport/ and http://www.cdc.gov/nceh/dls.

EU: The EU Medical Device Committee makes no recommendation to limit uses of PVC with DEHP (diethylhexylphtalate) at this time.

In its advisory opinion on the use of medical devices containing PVC plasticized with DEHP, the European Union's Scientific Committee on Medicinal Products and Medical Devices states that "*at this moment no specific recommendations can be made to limit the use of DEHP in any particular patient group.*" The general view of DEHP toxicity is that mechanisms for adverse effects do exist in rodents, but that 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. The Committee noted *"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*," but also recommended additional study to monitor the situation. The advisory opinion was requested by the European Commission, which will decide whether to propose any legislation.

Reference:Opinion on medical devices containing DEHP plasticized PVC neonates and possibly at risk from DEHP toxicity. http://www.europa.eu.int/comm/food/fs/sc/scmp/out43_en.pdf.

EUROPE: The European PVC industry published its third Annual Progress Report of activity on sustainable development during the past year.

The 2003 Report shows an increase in investment on waste management, research and development and other projects of the industry's Voluntary Commitment during 2002. Among the highlights in last year's activities were: 1) Further progress on the industry's production voluntary charter (93% full compliance, up from 88% in 1998); 2) start-up of the Vinyloop® cable recycling facility in Ferrara, Italy; 3) launch of recycling projects in Germany, Denmark, France and other countries, involving pipes, window frames, roofing membranes, coated fabrics, feedstock recycling and mixed plastics waste; 4) Cooperation with European municipalities and regions in Spain and Portugal in partnership with the EU-supported Association of Cities and Regions for Recycling (ACRR). Vinyl 2010 is scheduled to set up a Monitoring Committee with Members of the European Parliament, officials of the European Commission and trade union representatives to independently evaluate the industry's progress.

Reference : The report is downloadable from http://www.vinyl2010.org and printed copies are available by emailing vgraham@cambre-associates.com

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