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Issues in this Issue...

Recurrent themes

In recent months there have been recurrent SHE topics that have proven difficult to avoid, top of the list is Reach, closely followed by perfluorinated compounds, notably PFOS, and brominated flame retardants. Not forgetting nanomaterials, which seem to hover between being a cure-all and revolutionary technological breakthrough, to the most harmful thing going since GMOs (genetically modified organisms). Perfluorooctanoic acid (PFOS) has made the mainstream headlines, mainly because of its use in the manufacture of Teflon. This use was highlighted in a recent press release from EU Parliament, *Teflon and Gore-Tex under Parliament's microscope* (***SHE7686***). Hopefully this did not result in too many saucepans and outdoor clothing finding its way into the rubbish bin. It is PFOS, not these products as such that are under the spotlight and likely to be subject to restrictions of marketing and use. In Canada, it has been recommended that PFOS and its salts be added to Schedule 1 to the Canadian Environmental Protection Act, 1999 (***SHE7709***).

Keep an eye on those headlines

This Editor too, has fallen into the trap of those eye-catching headlines. In the June issue of *SHE Alert*, we reported on 'new' research that indicated that deca-brominated diphenyl ether (deca-BDE) could breakdown into more harmful smaller congeners, but in this issue we publish a response by the Bromine Science and Environmental Forum (BSEF). Looking more closely at the parameters used in the research, it appears that such degradation is not so likely to occur under 'normal' environmental conditions (***SHE7682***).

Reach goes on and on

The EU Council has adopted its Common Position on Reach (***SHE7684***), paving the way for the second reading by EU Parliament in October (***SHE7688***). Meanwhile, NGOs continue to lobby Parliament to reaffirm its support for the substitution principle in the second reading (***SHE7685***). It is still anticipated that agreement on the proposed legislation can be achieved by the end of 2006, but the inclusion of additional amendments cannot be excluded. Parliament is now in summer recess until 28 August but that probably will not stop speculation in the meantime.

The European Chemicals Bureau has released guidance (RIP 3.8) for producers and importers of articles in the EU, on whether or not they have obligations according to Reach (***SHE7687***). It might be worth checking this guidance to ascertain if the substances you use in articles need to be registered. In preparation for Reach in the UK, the Chemical Industries Association has compiled a database of chemicals marketed by its member companies above 1 tonne per company in 2005 (***SHE7689***). The Department for Environment, Food and Rural Affairs has outlined a proposal to revoke 17 Statutory Instruments that implement amendments to the Marketing and Use Directive (76/769/EEC), and replace them with a single statutory instrument (***SHE7690***). This consolidation of legislation is a step towards getting ready for the implementation of Reach.

Limits of exposure

As everyone slaps on the sunscreen and sits in the shade to avoid too much exposure to the sun, we report on a number of occupational exposure limit values in this issue. The 2006 MAK and BAT values have been released by the Senate Commission of the Deutsche Forschungsgemeinschaft (***SHE7694***). This year the Commission gave particular attention to the criteria for assessing the danger of chemical compounds during pregnancy. The American Conference of Government Industrial Hygienists has announced which compounds on its Under Study list are now likely to move forward to the Notice of Intended Changes in 2007 (***SHE7693***). In the UK, the Health and Safety Commission is now seeking comments on proposals to implement Directive 2006/15/EC, which established a second list of IOELVs (indicative occupational exposure limit values) (***SHE7695***). Added to these substances, for which there are occupational exposure limits, are those substances subject to a proposed Directive that will set environmental standards for 41 dangerous substances to ensure 'good chemical surface water status' by 2015 (***SHE7674***). This makes the ***Substance Monitor*** in this issue slightly longer than is usual, listing some 130 substances.

Whatever happened to WEEE in the UK?

As the RoHS Regulations came into force on 1 July, one begins to ponder just whatever happened to the implementation of the Waste Electrical and Electronic Equipment Directive in the UK. The DTI has now launched another consultation, this time seeking views on the UK's interpretation of the Directive. This legislation was due to be in place in August 2005.

Tina Walton

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DIGEST

Of Special Interest

- Surface water pollution and environmental quality: ***SHE7674***
- ISO standard for environmental labels and declarations: ***SHE7676***
- EU Council adopts common position on Reach: ***SHE7684***
- UK CIA database of chemicals: ***SHE7689***
- UK: consolidating marketing and use legislation: ***SHE7690***
- MAK and BAT values 2006: ***SHE7694***
- UK consultation on second list of IOELVs: ***SHE7695***
- USA - health effects of particulate matter exposure: ***SHE7710***
- Continued use of lead-based paint is a global problem: ***SHE7716***

- **Substances.** Among the substances addressed in this issue are:

  - 2-Butoxyethanol: ***SHE7694***
  - Formaldehyde: ***SHE7697***
  - Glycol ethers: ***SHE7693, SHE7694*** and ***SHE7695***
  - Hexamethylene diisocyanate: ***SHE7698***
  - Lead: ***SHE7714*** and ***SHE7716***
  - Polybrominated diphenyl ethers: ***SHE7680***, ***SHE7682*** and ***SHE7708***
  - Perfluorinated compounds: ***SHE7686***, ***SHE7693*** and ***SHE7709***

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POLLUTION CONTROL

Air Pollution

SHE7673

Responses to consultation on PPC regime in the UK

The UK Department for Environment, Food and Rural Affairs (Defra) has published findings of its consultation (see ***SHE7447***), on the first stage of the better regulation review of the local authority pollution prevention and control regime. Defra, the Scottish Executive (SE) and the Welsh Assembly Government (WAG) held a consultation on a UK wide review of the Pollution Prevention and Control (PPC) regime known as Part B, where it regulates air emissions from activities not directly subject to EU air pollution controls.

The consultation sought views on draft criteria for assessing the scope for simplifying or employing alternative regulatory approaches. The finalised criteria and the comments will now be taken forward as part of the second stage of the review. A draft Regulatory Impact Assessment (RIA) will be produced before a second consultation. The review will continue to examine:

- whether the PPC regime is still the most appropriate way to regulate businesses;
- whether it would be possible to simplify procedures; and
- whether alternative regulatory approaches could be used.

The majority of responses were from local authorities or local authority pollution groups, however; there were also responses from trade associations and companies operating listed activities. This included responses from the British Coatings Federation (BCF) and British Furniture Manufacturers Ltd. In reference to Annex A of the consultation, the BCF recommends that the draft criteria for the better regulation review of Part B Activities with no EU Directive 'cover', are reassessed and rewritten as objective and measurable requirements. This is recommended to ensure that the basis for any decisions to remove, or to add, industry sectors and/or installations are transparent and accountable. In response, Defra, SE and WAG comment that the application of the criteria will involve an objective and evidence-based approach, with the inclusion of the RIA of the costs and benefits in the second consultation.

The BCF also commented on process guidance notes, PG6/9, PG6/13, PG6/16 and PG6/33, and it was suggested that because PG6/9(04) (see ***SHE6643***) does not implement an EU Directive, it should be added to the list of Part B low to medium risk activities, other than animal/vegetable. Other suggested changes will be considered as part of the review. Suggestions by British Furniture Manufacturers Ltd to abolish PG1/12(04) and PG6/2(04) and to revise the threshold limit value for coatings consumption to 15 tonnes per annum in PG6/33(04) will be taken into consideration.

- PG1/12(04) - Combustion of fuel manufactured from or comprised from solid waste in appliances;
- PG6/2(04) - Manufacture of timber and wood based products;
- PG6/9(04) - Powder coating manufacture;
- PG6/13(04) - Coil coating processes (see ***SHE6536***);
- PG6/16 - Printworks (see ***SHE4971***);
- PG6/33(04) - Wood coating (see ***SHE6694*** and ***SHE6587***).

Under the PPC Regulations, the UK Environment Agency has revised the qualifying criteria for a 'low impact installation' (see ***SHE7675***).

Air pollution: Defra publishes consultation findings on better regulation
Department for Environment, Food and Rural Affairs, *17 July 06, 2+24 pp*

Water Pollution

SHE7674

Surface water pollution and environmental quality

On 17 July 2006, the European Commission adopted a proposed Directive that will set environmental quality standards for 41 dangerous substances to ensure 'good chemical surface water status' by 2015. The proposed Directive is the final piece of legislation necessary to support the Water Framework Directive (WFD 2000/60/EC, see ***SHE5486*** and ***SHE4299***). Good groundwater chemical status will be met by compliance with the proposed Groundwater Directive (see ***SHE7631***).

The 41 dangerous substances are considered to pose a particular risk to animal and plant life in the aquatic environment and to human health. Thirty-three of the 41 substances have been designated as priority substances. These 33 substances have been identified as a significant risk to the aquatic environment due to their widespread use and high concentrations in surface water. Thirteen of the substances are also specified as 'priority hazardous substances', to which stringent limit values will apply because they are toxic, persist in the environment or bioaccumulate. These 13 substances are:

- anthracene
- brominated diphenyl ethers
- cadmium and its compounds
- C_{10-13} chloroalkanes
- endosulfan
- hexachlorobenzene
- hexachlorobutadiene
- hexachlorocyclohexane
- mercury and its compounds
- nonylphenols
- pentachlorobenzene
- polyaromatic hydrocarbons
- tributyltin compounds

The remaining priority substances include:

- benzene
- 1,2-dichloroethane
- dichloromethane
- di(2-ethylhexyl phthalate)
- diuron
- lindane (gamma isomer)
- lead and its compounds
- naphthalene
- nickel and its compounds
- 4-*para*-nonylphenol
- octylphenols
- *para*-*tert*-octylphenol
- pentachlorophenol
- trichlorobenzenes
- 1,2,4-trichlorobenzene
- trichloromethane

Among the eight pollutants not on the priority substances list are:

- carbon tetrachloride
- tetrachloroethylene
- trichloroethylene

Member States will have to achieve the proposed limits for all priority substances by 2015 and cease discharges and emissions of priority hazardous substances into water by 2025.

In a press release on the 19 July 2006, the European Environmental Bureau expressed its regret that the proposal lacks concrete measures to achieve the reduction and phase-out of pollutants as required by the WFD.

Commission takes action to combat surface water pollution from dangerous substances
***Europa press release**, 18 July 06, IP/06/1007, 2 pp*

Waste

SHE7675

PPC and low impact installations

The UK Environment Agency has revised the qualifying criteria for a 'low impact installation' under the Pollution Prevention and Control (PPC) Regulations. The PPC Regulations are enforced by the Environment Agency and set limits on how much pollution a company is permitted to emit into the environment.

In an attempt to ease the regulatory burden placed on small producers by the Integrated Pollution Prevention and Control Regulations, the Environment Agency introduced the concept of 'low impact' installations in 2000. The idea was that installations whose discharges, waste production, noise emissions etc, fell below certain levels, would have less inspections and pay lower fees. In July 2003, it was briefly reported that the Environment Agency was considering whether to amend the provisions for registering chemical sites as 'low impact', because interest in this form of registration had been negligible (see ***SHE5915***).

Following a recent consultation with a number of trade organisations and in agreement with the Department for Environment, Food and Rural Affairs, more installations will potentially be classified as 'low impact installations'. Waste production, emissions of polluting substances and energy consumption are just some of the changes to the criteria. For example, as a part of the classification as low impact, installations will now be able to release up to 50 m^3 of waste per day, whereas the previous limit was 20 m^3. These changes came into force on 26 June 2006.

Low environmental impact businesses to benefit from guidance changes
Head Office Press Office
***Environment Agency (UK)**, 26 June 06, 1 p*

Environmental Management

SHE7676

ISO standard for environmental labels and declarations

The International Organization for Standardization (ISO) has published ISO 14025:2006, 'Environmental labels and declarations - Type III environmental declarations - Principles and procedures'. This standard is designed to improve business to business communication by enabling purchasers to make comparisons between products that fulfil the same function. ISO 14025 is also expected to play a role in national and regional eco-label programmes.

ISO 14025:2006 Type III environmental declarations provide quantified environmental information about products, using predetermined parameters based on the ISO life-cycle assessment series of standards (see ***SHE7677***). Additional information, such as the impact on biodiversity, instructions and limits for efficient use, or hazard risk assessment on human health and the environment are included.

ISO 14024:1999 and ISO 14021:1999 cover Type I and Type II environmental labelling, respectively. Type I environmental labels are multi-criteria third party programmes that award environmental labels to products meeting a set of predetermined requirements. Type II environmental labels specify requirements for self-declared environmental claims made by manufacturers, importers or anyone else likely to benefit from such claims. Other standards in the environmental labelling series include ISO 14020, ISO 14022 and ISO 14023 as follows:

- ISO 14020: Environmental labels & declarations - general principles
- ISO 14022: Environmental labels & declarations - environmental claims - self declaration environmental claims - symbols
- ISO 14023: Environmental labelling - self declaration environmental claims - testing & verification methodologies

In November 2005, ISO put together on one CD-ROM all of the ISO 14000 standards for environmental management. In addition to the 20 published standards, a draft nearing completion for ISO 14025 was included (see ***SHE7356***).

ISO standard will help purchasers by clarifying environmental labels
Press release
***International Organization for Standardization**, 10 July 06, 2 pp*

SHE7677

ISO standards for life cycle assessment

The International Organization for Standardization (ISO) has published new, improved editions of its life cycle assessment (LCA) standards, designed to highlight environmental problems and areas for improvement in the manufacture and use of products. The aim of the LCA is to compare the environmental performance of products in order to be able to select the one that has the least impact on the environment.

Environmental management standards, ISO 14040:2006 and ISO 14044:2006 replace the previous standards: ISO 14040:1997, ISO 14041:1999, ISO 14042:2000 and ISO 14043:2000. As before, ISO 14040 covers the principles and framework of the LCA. It provides a clear overview of the practice, applications and limitations of a LCA to a broad range of potential users and stakeholders, including those with a limited knowledge of life cycle assessment.

ISO 14044 combines the previous contents of ISO 14041, ISO 14042 and ISO 14043 into one standard, covering the requirements and guidelines of the LCA. It is designed for the preparation of, conduct of, and critical review of life cycle inventory analysis. It also provides guidance on the impact assessment phase of a LCA and on the interpretation of LCA results, as well as the nature and quality of the data collected. The previous standards were as follows:

- ISO 14041 - LCA - life cycle inventory analysis;
- ISO 14042 - LCA - impact assessment;
- ISO 14043 - LCA - interpretation.

Also see, ***SHE2890*** and ***SHE2411***.

Drafts nearing completion for ISO 14040 and ISO 14044 were also included the CD-ROM of all of the ISO 14000 standards for environmental management, released in November 2005 (see ***SHE7356***).

ISO standards for life cycle assessment to promote sustainable development
Press release
***International Organization for Standardization**, 7 July 06, 2 pp*

CHEMICALS CONTROL

Risk Assessment

SHE7678

UK NetRegs guidelines for chemical manufacturing are updated

NetRegs provides online environmental guidance for small and medium size enterprises in the UK. The guidelines for chemical manufacture have recently been updated. These guidelines are divided into the following sections:

- Manufacture of commodity chemicals
- Manufacture of consumer chemicals
- Manufacture of speciality chemicals
- Ancillary processes

It is recommended that where a specific business is not mentioned, the user should refer to the general chemicals manufacture guidelines under the manufacture of commodity chemicals. It is noted that the following activities will be covered by Part A of the Pollution Prevention and Control (PPC) Regulations and therefore are not covered by the NetRegs guidelines:

- most processes using chemical reactions and some involving physical processes;
- the production of inorganic chemicals; and
- the production of many organic chemicals.

The main environmental challenges facing the chemical manufacturing industry are highlighted along with the main environmental drivers, which now include the impact of the proposed new EU Chemicals Policy, Reach.

Guidelines for the manufacture of paints, varnishes and similar coatings, printing ink and mastics (introduced in 2003, see ***SHE6074***) fall under the section on the manufacture of consumer chemicals. These guidelines again only cover the manufacture of products not covered by the PPC regulations (which covers, for example, the manufacture of sealants and solvent-based coatings).

Chemical manufacture guidelines (updated)
Environment Agency (UK)
***NetRegs (www.netregs.gov.uk)**, July 2006, 3 pp*

SHE7679

Using predictive tools to assess toxicity

This paper has been prepared on behalf of the Advisory Committee of the German Toxicology Society to discuss the use of predictive tools in toxicology. This discussion has been prompted by the proposed new EU Chemicals Policy, Reach, which will require the evaluation of chemicals but is meant to avoid an increase in animal testing. To this end, alternative methods to animal testing to determine toxicity are advocated in the Reach proposal but are not clearly defined.

Predictive tools for toxicological endpoints based on known mechanisms, such as mutagenicity and skin sentisation are already accepted methods for assessing toxicology. It is, however, more difficult to predict mechanistically more complex endpoints, such as organ toxicities. These complex toxicities will need to be broken down into constituent steps that can then be integrated to predict toxicity.

In conclusion, predictive tools do support the screening and prioritisation of substances for further toxicological testing.

Use of computer-assisted prediction of toxic effects of chemical substances
Brigitte Simon-Hettich, Andreas Rothfuss & Thomas Steger-Hartmann
***Toxicology**, 5 July 06, 223(1-2), pp 156-162*

Hazards and Toxicology

SHE7680

Brominated flame retardants in the environment

A special issue of the journal *Chemosphere* is devoted to papers presented at the Third International Workshop on Brominated Flame Retardants held in Toronto, Canada, 6-9 June 2004. Papers presented at the Workshop examine the fate and effects of brominated flame retardants in the environment.

One paper reviews the levels and trends of brominated flame retardants in Europe (also see ***SHE6526***), while another examines the levels and trends in the Arctic. The input of brominated diphenyl ethers (BDEs) to the Baltic Sea by atmospheric deposition now exceeds that of PCBs (polychlorinated biphenyls) by a factor of almost 40 times. The major source of BDEs, hexabromocyclododecane (HBCD) and tetrabromobisphenol A (TBBPA) is attributed to diffuse leaching from products into wastewater streams from users, households and industry. BDEs and HBCD have been detected in peregrine falcons from Sweden† and other birds feeding in terrestrial food chains. BDEs are also found widely distributed in fish. The observation of BDEs in fish in high mountain lakes is indicative of long-range atmospheric transport and deposition. Similarly the observation of BDEs in the Arctic is indicative of long-range atmospheric transport.

In an analysis of the distribution of PBDEs and organochlorines in small cetaceans from Asian waters, the highest concentrations of PBDEs were found in samples from Hong Kong, followed by Japan (see ***SHE6634***), with much lower levels in samples from the Philippines and India. The geographical distribution of PBDEs in Asian waters was similar to that for DDTs but differed to that for PCBs.

In a retrospective analysis of PBDEs in archived blue mussel samples collected from the coastal areas of France over the past 22 years, the highest levels of PBDEs were observed in mussels from the English Channel. PBDE levels rose markedly from 1981 to 1995, thereafter levels began to equilibrate between 1999 and 2001, and began to decline after 2002. In a comparison with data from North America (see ***SHE6064***), PBDE levels in Europe are much lower. In comparison with similar studies carried out in Spain and Japan, US food PBDE levels are much higher (see ***SHE6744***). The occurrence of PBDEs in the coastal waters and five rivers in Portugal is described in another paper.

† In September 2005, the Swedish Chemicals Inspectorate (KemI) was commissioned by the Government to review the consequences and benefits of a national ban on HBCD and TBBPA. It was the conclusion of this review that Sweden should wait for the conclusions of the European risk management strategies for HBCD and TBBPA to make an accurate assessment of any necessary measures at the national and EU levels (see ***SHE7538***, ***SHE6401*** and ***SHE3265***).

Brominated flame retardants (BFRs) in the environment - Papers presented at the Third International Workshop on Brominated Flame Retardants, held in Toronto, Canada, 6-9 June 2004
Edited by M. Alaee
***Chemosphere**, June 2006, 64(2), pp 179- 338*

SHE7681

Chemical safety and nanomaterials

At the beginning of June 2006, a symposium on the topic 'chemical safety and nanomaterials' was held in Vienna by the Austrian Federal Authority for Environmental Protection and Control (Umweltbundesamt). The speeches covered a wide range of safety aspects including regulatory issues at the EU and OECD level, recent research and risk assessment. Below is a list of speeches presented at the symposium:

- The safety of manufactured nanomaterials: the work of the OECD - P. Kearns (OECD)
- Nanotechnology prospects for sustainable development and risk assessment in dialogue - A. Wenisch (Austrian Institute for Applied Ecology)
- Safety and health assessment of manufactured nanoparticles in Germany - R. Amdt (Federal Institute for Occupational Safety and Health)
- Possible impact of nanomaterials on environment and health - H.F. Krug (Institute of Technology and Genetics, Forschungszentrum Karlsruhe)
- Pieces of evidence of the health impact of nanoscaled particulate matter - A.M. Gatti (Laboratory of Biomaterials, University of Modena & Reggio Emilia)
- Dealing with safety aspects of nanotechnology - A.Sips (National Institute for Public Health and the Environment, The Netherlands)
- Innovation and responsibility: Stakeholder dialogues on nanotechnology in Germany and Switzerland - A. Grobe (Risk Dialogue Foundation, University of St Gallen, Switzerland, University of Stuttgart, Germany)
- Carbon nanofibre composites: a commercial nano-application - K. Mauthner *et al.* (Electrovac)

- The green line approach: a UK strategy for appropriate control - E. Surkovic (Defra, UK)
- EU chemicals legislation - P. van der Zandt (European Commission)

PDFs of these speeches are available on the Umweltbundesamt website:

http://www.umweltbundesamt.at/

Chemical safety and nanomaterials (symposium 1 June 2006, Vienna)
Various
***Umweltbundesamt**, 1 June 06, 1 p*

SHE7682

Microbe degradation of deca-BDEs could be old news

It is the view of the Bromine Science and Environmental Forum (BSEF) that recently published research (see ***SHE7641***), in which it is claimed that some bacteria in soil can transform a commonly used flame retardant into potentially harmful substances to humans, merely confirms existing research.

The research recently published in *Environmental Science & Technology* shows that bacteria can breakdown decabromodiphenyl ether (deca-BDE), which contains 10 bromine atoms, into smaller poly-brominated diphenyl ethers (PBDEs) containing 8 and 9 bromine atoms. It was suggested that these octa-BDE molecules can then be attacked by other bacteria to produce PBDEs with 6, 5 and 4 bromine atoms. It is these smaller PBDEs that are found to bioaccumulate in people and animals.

BSEF believes that this study confirms existing research, which shows that deca-BDE can degrade anaerobically to octa-BDE, but that such degradation does not produce the lower PBDE congeners that are found in the environment. BSEF also explains that the conditions employed in the recent study do not mimic and therefore are not relevant to the environment. Some specific concerns are noted as follows:

- No degradation was observed without the addition of trichloroethylene to act as a fuel, which would not be present in the environment in such high concentrations as used in the study.
- The study only infers the potential of deca-BDE degradation but not on the persistency and degradation of deca-BDE under actual environmental conditions.

Further concerns are noted in the statement by the BSEF.

BSEF announced on 28 June 2006, that based on results from Total Diet Studies (from samples collected in 2003/2004), estimated dietary exposure to brominated compounds does not have implications for health.

Response to 'Microbial reductive debromination of polybrominated diphenyl ethers (PBDEs)' published in *Environmental Science and Technology*
***BSEF**, 15 June 06, 2 pp*

SHE7683

Nanotechnology - review of UK policy

The Council for Science and Technology is to review UK Government progress on its actions on nanotechnology policy since publication of the report, *Nanoscience and nanotechnologies: opportunities and uncertainties*, by the Royal Society and Royal Academy of Engineering, in 2004 (see ***SHE6577***). In response to knowledge gaps identified in this report, in November 2005, the UK Government published a report setting out a programme of research objectives to characterise the potential risks posed by nanoparticles to human health and the environment (see ***SHE7360***). As a part of the current review, the Council is asking for written submissions on the following issues:

- The extent to which the Government has taken forward commitments, described in a response it issued in 2005.
- The timeliness and effectiveness of the actions taken by the Government.
- Whether there have been significant developments in nanoscience/technology since February 2005, which raise new issues the Government did not address in its response, and should now.

Written submissions should be sent to ***nanoreview@cst.gov.uk*** by 2 October 2006. In spring 2006, the UK Department for Environment, Food and Rural Affairs held a consultation on a voluntary scheme to gather information on nanotechnology (see ***SHE7557***). Further details about this consultation and the Government's response in February 2005 can be found on the Department of Trade and Industry's website at: ***http://www.dti.gov.uk/science***

Select 'Science in Government' from the left menu bar and then 'nanotechnologies' from the link in the text on the subsequent page.

Nanotechnology policy review announced
Department of Trade and Industry
***GNN**, 6 July 06, 3 pp*

Market Restrictions

SHE7684

EU Council adopts common position on Reach

The European Council has adopted its common position on Reach, paving the way for a second reading by EU Parliament later this year (see ***SHE7688***). The Council had adopted two common positions on:

- 7524/06 - the draft regulation for the registration, evaluation, authorisation and restriction of chemicals (Reach), and establishing a European Chemicals Agency;
- 7525/06 - the draft directive amending Council Directive 67/548/EEC relating to the classification, packaging and labelling of dangerous substances, in order to adapt it to the draft regulation on Reach.

Reach will apply to all substances manufactured or imported in quantities over 1 tonne per year. The Council has made changes to the definition of existing substances in order to cover all substances listed in the European inventory of existing commercial chemical substances (EINECS). In order to include some of the key components of the 'one substance, one registration' proposal, the common position provides for all manufacturers or importers of the same substance to submit certain parts of the registration dossier jointly. There are specific provisions for opting out of this obligation, for example, where joint submission would involve disproportionate costs and where it would lead to commercially sensitive information being exchanged.

To lessen the burden on **SMEs**, manufacturers or importers of low volume substances (1-10 tonnes) would only have to submit already available data, unless the substances meet with simple criteria that highlight them as being of potential concern. For substances manufactured or imported in quantities of 10 tonnes or more per year, a proposal has been put forward that only one reproductive toxicity test would be required, in addition to the information necessary for low volume substances of potential concern.

Within 18 months of entry into force, the Commission will adopt criteria defining what constitutes adequate justification for omitting certain tests based on exposure scenarios developed in the chemical safety report (CSR), see ***SHE7561***, ***SHE7502*** and ***SHE7171***.

Substances that are intentionally released from articles should be registered according to the phase-in periods of 3, 6 and 11 years. Where exposure to humans or the environment cannot be excluded throughout the life-cycle, it may be necessary to notify the Agency of the presence of substances in articles, if they are contained above a certain level and meet with criteria for authorisation. Reach Implementation Project (RIP) 3.8 provides further details of requirements for substances in articles (see ***SHE7687***).

The common position clarifies the cases in which downstream users should conduct a chemical safety assessment (CSA) and prepare a CSR. Under the common position, responsibility for dossier evaluation has been transferred to the Agency, while substance evaluation will be carried out by Member State competent authorities.

It is reiterated in the common position that adequate control is not a sufficient basis for granting authorisation for substances that are PBT (persistent, bioaccumulative and toxic) or vPvB. It was agreed that applications for authorisations should always include an analysis of possible alternatives by the registrant. A candidate list of substances meeting the authorisation criteria is to be published by the Agency. There is provision for a transition period after Reach comes into force, to enable Member States to update existing national legislation relating to current restrictions on the marketing and use of chemicals.

Council adopts its common position on new chemicals EU legislation - the REACH system
European Commission
***Europa press release**, 29 June 06, pp 5-10*

SHE7685

NGOs express concern about Council's common position on Reach

Several non-governmental organisations† (NGOs) have expressed their concern about the EU Council's recently adopted common position on the proposed EU Chemicals Policy, Reach (see ***SHE7684***). In particular, is the issue of substitution. The NGOs see the continued use of certain hazardous substances as long as they are subject to 'adequate control', as a loophole to the substitution of hazardous chemicals with safer alternatives, wherever possible. The NGOs are therefore urging Parliament to reaffirm its support for the substitution principle, in its second Reading of the legislation, which is due to take place in October (see ***SHE7688***).

The NGOs are also concerned with proposals to reduce the safety information that manufacturers/ importers would be obliged to supply. These proposals are designed to lessen the burden on **SME** manufacturers or importers of low volume substances (1-10 tonnes). For substances manufactured or imported in quantities of 10 tonnes or more per year, a proposal has also been put forward that only one reproductive toxicity test would be required in addition to the information necessary for low volume substances of potential concern (see ***SHE7684***).

In April 2005, the UK's approach to substitution of substances with less risky alternatives was outlined (see ***SHE7020***). In September 2004, the UK Chemical Industries Association (CIA), Confederation of British Industry (CBI) and Greenpeace issued a common position statement with regard to the authorisation of substances of very high concern within Reach. The statement urged the Minister of State for Rural Affairs and Local Environmental Quality to press for substitution to be incorporated in Reach in such a way that the authorisation procedure is effective, but flexible, in progressively phasing out substances of very high concern (see ***SHE6768***).

†The NGOs, which released the statement in response to the Council common position include: WWF, Women in Europe for a Common Future, Greenpeace, the European Environmental Bureau and Friends of the Earth.

EU Council ignores the European Parliament on substituting dangerous chemicals
***WWF**, 27 June 06, 1 p*

SHE7686

Limiting the use of PFOS and PFOA

In December 2005, the European Commission presented a proposal† for a Directive to restrict the marketing and use of perfluorooctane sulfonates ($C_8F_{17}SO_2X$, where X is OH, a metal salt, halide, amide, and other derivatives including polymers). This Directive would prohibit the placing on the market or use of PFOS as a substance or constituent of preparations in a concentration equal to or higher than 0.1% by mass.

On 13 July 2006, EU Parliament's Environment Committee adopted a report in which the key proposal is to reduce the figure of 0.1% to 0.005%. The Committee also voted for the proposed Directive to apply to perfluorooctanoic acid (PFOA), with the same concentration limit of 0.005% by mass. In amendments adopted by the Committee, the Directive would exclude products already in use, or on the second-hand market. The Committee also put forward time-lines after entry into force of the Directive for the following derogations in the Commissions' proposal:

- photoresists or anti-reflective coatings for photolithography processes used in controlled closed systems - 8 years
- industrial photographic coatings applied to films, papers or printing plates - 4 years
- controlled closed systems where the concentration of PFOS released into the environment and workplace is less than 1 µg per kg of PFOS used in the system - 6 years
- hydraulic fluids for aviation - 10 years
- fire fighting foams - 18 months

These derogations may be extended for a limited period of time on a case-by-case basis, if manufacturers can prove that they have made every effort to develop safer alternatives or alternative processes, and that these are still not available. The Commission proposal also includes a derogation for mist suppressants for chromium plating.

In July 2005, the Department for Environment, Food and Rural Affairs published a summary of responses to its consultation (see ***SHE6666***) on proposals to restrict the use of PFOS and substances that degrade to it (see ***SHE7173***). In October 2005, pending a decision on similar restrictions across the EU, the UK put forward a national plan to restrict the use of PFOS (see ***SHE7328***). In July 2006, Canadian Ministers of the Environment and of Health recommended that PFOS and its salts be added to Schedule 1 to the Canadian Environmental Protection Act (CEPA), 1999 (see ***SHE7709***).

† COM(2005) 618 final

Teflon and Gore-Tex under Parliament's microscope
***European Parliament**, 13 July 06, 1 p*

SHE7687

RIP 3.8 - Requirements for substances in articles

The aim of Reach Implementation Project (RIP) 3.8 is to provide guidance for producers and importers of articles into the European Union, on whether or not they have obligations according to Reach Article 6 and 30(4). The first step in determining whether an article is subject to Reach requirements or not, is to establish if the produced or imported objects are considered to be articles under Reach.

"Article means an object which during production is given a special shape, surface or design which determines its function to a greater degree than its chemical composition."

This Technical Guidance Document includes a concise table that aims to distinguish between borderline cases of objects, articles and preparations. For example, as regards coils, a coated sheet and strip is considered to be an article, whereas an extrusion is considered to be a preparation.

Substances on their own or in a preparation must be registered according to Article 5 of Reach (this includes objects not defined as articles e.g. the contents of a fire extinguisher). Article 6 defines under which circumstances, article producers and importers are to register or notify substances in articles and the necessary notification requirements.

Article 30(4) imposes a responsibility to communicate information down the supply chain on articles containing substances of very high concern (SVHC). Articles containing SVHC (i.e. cmrs of category 1 or 2, PBTs, vPvBs† or substances of equivalent concern) that appear on the candidate list may be subject to authorisation. Registration of substances in articles is only obligatory if the following conditions are met:

- the substance is intended to be released during normal and reasonable foreseeable conditions of use;
- the total amount of the substance present in the article exceeds 1 tonne per annum (tpa) per producer or importer;
- the substance has not yet been registered for that use.

Notification is required for a SVHC present in articles and for which the following conditions are met:

- the substances are present in those articles in a concentration above 0.1% (w/w); and
- the total amount in those articles exceeds 1 tpa per producer or importer.

If exposure to humans or the environment during normal operation or disposal can be excluded, or if the substance has already been registered for that specific use (under Article 6(5)) then notification is not obligatory. If the SVHC is present in concentrations > 0.1% (w/w), then it is obligatory to inform the next user in the supply chain as a minimum, the chemical names of these substances and how the article can be safely used. If all of the conditions in Article 6(4) are met then the Chemicals Agency may request the submission of a registration for substances in the article.

Further details of the registration and notification procedure, with examples, for SVHCs in articles are outlined in the guidance document.

If the total amount of the substance present in an article exceeds 1 tpa per producer or importer, then the obligation to register the substance applies 12 months after Reach enters into force. However, by pre-registering an existing substance with the Agency no later than 18 months after the entry into force, the importer or producer can take advantage of the phase-in scheme. Depending on the quantities of the substances involved, registration will then be required within 3, 6 or 11 years after entry into force of Reach.

†Cmr, carcinogens, mutagens and reprotoxins; PBT, persistent, bioacummulative, toxic; vPvB, very persistent, very bioacummulative.

Draft Technical Guidance Document on requirements for substances in articles - RIP 3.8
Various
***European Chemicals Bureau**, 26 May 06, 107 pp*

SHE7688

Reach gets ready for the second reading

Subsequent to the EU Council's recently adopted common position on the proposed EU Chemicals Policy, Reach (see ***SHE7684***), the Environment Committee held their opening debate on the second reading of the legislation on 12 July 2006. It is still anticipated that agreement on the proposed legislation can be achieved by the end of 2006, but the inclusion of additional amendments cannot be excluded.

As regards authorisation, the Council's opinion is still not in agreement with the decision made by Parliament (see ***SHE7325***), which wants five year reviews for all authorisations, whereas the Council proposes that reviews be set on a case-by-case basis (see ***SHE7367***). Guido Sacconi, the EU Parliament's lead rapporteur on the Reach proposal, plans to focus on those areas approved by a majority of MEPs but which Council has not yet accepted. These include:

- aid to SMEs;
- a European quality mark for products that meet the Reach criteria;
- research into alternatives for animal experiments;
- compulsory evaluation of substances likely to be cancerous, mutagenic or genotoxic, even if they have been produced in quantities of less than 10 tonnes.

The Environment Committee is currently scheduled to vote on Mr Sacconi's recommendations for a second reading on 10 October, with the plenary vote to follow in mid-November 2006.

REACH: the second half kicks off
***EuroParl**, 13 July 06, 1 p*

SHE7689

UK CIA database of chemicals

The UK Chemical Industries Association (CIA) has compiled a database of chemicals marketed by its member companies above 1 tonne per company during 2005. The CIA made a commitment to produce this database as part of the chemical industry's response to recommendations made by the Royal Commission of the Environment in a report in 2003 (see ***SHE5880***). UK Government formally responded to this report in August 2004 (see ***SHE6615***), stating that it was considering support for the development of the chemicals database by the CIA (announced earlier in 2004).

The database lists some 1600 single pure chemical substances that were placed on the UK market by CIA

member companies in 2005. The database is searchable by EU number and substance name (as recorded on the European chemical Substance Information System (ESIS)). The CIA plans to do two further data collections in 2006 and 2007 in preparation for the proposed EU Chemicals Policy, Reach, which may be adopted by the end of 2006 and be in force in 2007 (see ***SHE7684*** and ***SHE7688***).

A PDF version of the CIA Chemicals Database can be downloaded free of charge from:

http://www.cia.org.uk/newsite/sustainability/susdev.htm

In March 2006, the CIA announced the launch of its new service network, REACHReady, designed to provide a number of tools to help customers identify whether their products are within the scope of Reach (see ***SHE7508***).

See ***SHE7642*** for details about GESTIS databases, a project of the German Berufsgenossenschaften designed to produce a network of information on hazardous substances.

Chemicals: Industry helps public access and understanding
E. Burdess
Chemical Industries Association*, 11 July 02, 2+55 pp*

SHE7690

UK: consolidating marketing and use legislation

The UK Department for Environment, Food and Rural Affairs, has launched a consultation on the implementation of Marketing and Use Directives in the UK. This consultation seeks views on the following three issues:

- a proposal to revoke 17 Statutory Instruments that implement amendments to the Marketing and Use Directive (76/769/EEC), and replace them with a single consolidated Statutory Instrument;
- transposition of the restrictions on the marketing and use of polycyclic aromatic hydrocarbons (PAHs), as set out in Directive 2005/69/EC (see ***SHE7018***);
- transposition of the restrictions on the marketing and use of trichlorobenzene as set out in Directive 2005/59/EC (see ***SHE7373***, ***SHE7017*** and ***SHE6403***).

The single Statutory Instrument will gather in one place the majority of marketing and use amendments on hazardous substances that have environmental concerns. The consolidation of legislation is also a step towards getting ready for the implementation of the proposed EU Chemicals Policy, Reach. Directives 2005/59/EC and 2005/69/EC must be transposed by December 2006 and it is proposed that the restrictions introduced by these Directives will also be incorporated in the new single consolidated Statutory Instrument.

In accordance with Directive 2005/59/EC, trichlorobenzene and preparations containing in excess of 0.1% trichlorobenzene, will be prohibited from being placed on the market for any use except:

- an intermediate of synthesis;
- a process solvent in closed chemical applications; or
- in the manufacture of triaminonitrobenzene (TATB).

Directive 2005/59/EC also includes restrictions on the marketing and use of toluene, which has been subject to a separate consultation issued by the Department of Trade and Industry (see ***SHE7562***). This consultation closed on 3 July 2006.

Existing Regulations that would be revoked and replaced by the single consolidated Statutory Instrument include:

- The Control of Pollution (Antifouling Paints and Treatments) Regulations 1987 (S.I. 1987/783)
- The Environmental Protection (Controls on Injurious Substances) (Amendment) Regulations 2001 (S.I. 2001/3141, see ***SHE4785***)
- The Environmental Protection (Controls on Dangerous Substances) Regulations 2003 (S.I. 2003/3274)
- The Controls on Nonylphenol and Nonylphenol Ethoxylate Regulations 2004 (S.I. 2004/1816, see ***SHE6569***)
- The Controls on Pentabromodiphenyl ether and octabromodiphenyl ether (No 2) Regulations 2004 (S.I. 2004/3278)

Responses to the current consultation must be returned by 13 October 2006 and can be sent by e-mail to: ***chemical.management@defra.gsi.gov.uk***

Consultation on a consolidated approach to the Marketing and Use Directive
Department for Environment, Food and Rural Affairs*, 21 July 06, 1+64 pp*

SHE7691

Amendment to EU Detergents Regulation

EC Regulation 648/2004 established rules for the biodegradation of surfactants for detergents, and for the labelling of detergent ingredients (see ***SHE6347***). This Regulation is now amended by EC Regulation 907/2006, such that Annexes III and VII in the 2004 Regulation are amended by Annexes I and II, respectively in the 2006 Regulation.

Annex I (III) details the ultimate biodegradability (mineralisation) test methods for surfactants in detergents. An additional test method (ISO standard 10708:1997) for surfactants poorly soluble in water has been introduced. Annex II (VII) details labelling requirements for detergents sold to the general public. To make information easier for the general public to understand, INCI (International Nomenclature Cosmetic Ingredient) nomenclature already in use for cosmetic ingredients is to be used. Allergenic fragrances in detergents should now be declared, irrespective of the way they are added to the detergent.

EC Regulation 907/2006 entered into force on 11 July 2006, the amendment to Annex VII applies from 11 January 2007.

Commission Regulation (EC) No 907/2006 of 20 June 2006 amending Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, in order to adapt Annexes III and VII thereto
European Commission
***Official Journal of the European Union**, 21 June 06, 49(L168), pp 5-10*

SHE7692

HSE approved biocides and amendments

In the latest list of new approvals for biocides and pesticides, released by the UK Health and Safety Executive, there are two surface biocides and two wood preservatives. The remainder of approvals are for rodenticides (6), vertebrate repellents (2), insecticides (2) and an insect repellent. The new approvals for surface biocides are for Polycell exterior fungicidal spray and Wykabor powder. The approvals for wood preservatives are for Wykabor powder and Protim E418. Product details (e.g. manufacturer, active ingredient etc), method and field of use, as well as precautionary phrases are included.

Amendments include a change to the amount of active ingredients (disodium octaborate) used in the wood preservatives: Boron ultra gel and ACS Borotreat 10 AQ. The latter is also defined as a surface biocide. This information along with a list of all approved biocides, wood preservatives, wood treatments, biocidal paints and antifouling products (formerly published in print in the 'blue book', see ***SHE6413***) are available as pdfs from the HSE:

http://www.hse.gov.uk/pesticides/bluebook/

May 2006 - Products approved via HSE Biocides and Pesticides Unit
***Health and Safety Executive**, July 2006, 55 pp*

HEALTH AND SAFETY

Occupational Exposure Limits

SHE7693

ACGIH lists substances that may go on 2007 NIC list

The ACGIH recently released its first two-tier Under Study list in accordance with changes made to its TLV/BEI development process announced in January 2006 (see ***SHE7478***). The first tier indicates those chemical substances and physical agents that are likely to move forward to the Notice of Intended Changes (NIC) in the forthcoming year. The second tier consists of those substances or physical agents that will either remain or be removed from the Under Study list for the next year. The process is such that the Under Study list will be updated each year by 1 February and a two-tier list will be established by 31 July of that year. The following (Tier 1) substances may move forward with an NIC proposal for TLVs in 2007:

- cresol
- diethanolamine
- ethanol
- methyl isoamyl ketone
- methyl isobutyl ketone
- petroleum solvents
- talc, containing no asbestos fibres
- 1,2,3-trichloropropane
- trimellitic anhydride

The following (Tier 2) substances will not move forward with an NIC proposal for TLVs in 2007:

- acetaldehyde
- acetophenone
- carbon black
- creosote
- diethylene glycol monobutyl ether
- maleic anhydride
- methanol
- methyl ethyl ketone
- titanium dioxide
- vinyl acetate
- wood dusts

The following substances have been removed from the TLV under study list:

- 2-ethoxyethanol
- 2-ethoxyethyl acetate

The entry name for bromochloromethane has been changed to chlorobromomethane, and it is on the Tier 1 list. The following (Tier 1) substances may move forward with an NIC proposal for BEIs in 2007:

- carbon disulfide
- 2-methoxyethanol/2-methoxyethyl acetate
- toluene
- trichloroethylene

The following (Tier 2) substances will not move forward with an NIC proposal for BEIs in 2007:

- beryllium
- mercury
- pentachlorophenol
- perfluorooctanoic acid
- tetrachloroethylene
- vanadium pentoxide

Arsine has been removed from the under study list. The BEI Committee is encouraging the submission of new data for those substances which may pose a risk to health but for which a BEI has not been established owing to inadequate scientific data. The substances on this list include:

- acrylonitrile
- methyl n-butyl ketone
- vinyl chloride

As regards physical agents under study, the following may move forward with an NIC proposal in 2007: ergonomics - specifically hand-arm vibration; lasers (non-ionising radiation and fields) - specifically light and near-infrared radiation and radiofrequency and microwave radiation.

ACGIH announces release of two-tier under study list ***American Conference of Government Industrial Hygienists***, *21 June 06, 2+2 pp*

SHE7694

MAK and BAT values 2006

The Senate Commission of the Deutsche Forschungsgemeinschaft (DFG) on the Investigation of Health Hazards of Chemical Compounds in the workplace has published proposals for the 2006 MAK (maximum allowable concentration) and BAT (biological tolerance) values. There have been 155 changes and new entries since 2005 (see ***SHE7175***).

This year, the Commission gave particular attention to the criteria for assessing the danger of chemical compounds during pregnancy. In this respect 62 compounds were tested, the majority of which are assigned to pregnancy Group C, that is, should pose no threat to embryos as long as there is compliance with the MAK value.

MAK values have been established or changed for the following substances:

- 2-butoxyethanol
- diethanolamine
- dipropylene glycol
- diethylene glycol monoethyl ether
- propylene glycol monoethyl ether

- ethyl 3-ethoxy propionate
- 1-ethoxy-2-acetoxypropane
- mesityl oxide

As regards carcinogenicity, *o*-toluidine, lead and its inorganic compounds and cyclopenta[cd]pyrene have been assigned as carcinogenic category 2 (shown to be carcinogenic in animal studies and therefore considered to be carcinogenic to man). Diethanolamine has been moved from category 3A (suspected carcinogen but insufficient data to establish a MAK value) to 3B (in vitro or animal studies have yielded evidence of carcinogenic effects that are not sufficient to establish a carcinogen category). Aniline has been evaluated as carcinogenic but no significant contribution to human cancer risk is expected, provided the MAK value is observed (i.e. category 4).

Fourteen substances have been allocated the warning symbol 'H', which means that absorption through the skin, as well as inhalation, essentially contributes to toxicity in the workplace. There is a new BAT value of 5 mg/l for perfluorooctanoic acid and its inorganic salts. New biological guideline values (BLW) will be established for bisphenol A, 4,4'-diaminodiphenylmethane and diphenylmethane-4,4'-diisocyanate. Please see the ***Substance Monitor*** for further details.

DFG presents the 2006 MAK and BAT value list - Focus on health protection during pregnancy
AlphaGalileo (DFG Press release)
***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp*

SHE7695

UK consultation on second list of IOELVs

Member States have until August 2007 to comply with the provisions of Directive 2006/15/EC, which established a second list of indicative occupational exposure limit values (IOELVs, see ***SHE7476***). The Health and Safety Commission (HSC) is now seeking comments on proposals to implement Directive 2006/15/EC in the UK. This will involve establishing workplace exposure limits (WELs) for 33 substances as listed in the Directive. These substances include:

- acetonitrile
- 2-(2-butoxyethoxy) ethanol
- chromium metal
- cyclohexane
- n-hexane
- methanol
- oxalic acid
- resorcinol
- toluene

Supporting documentation by the EU Commission's Scientific Committee on Occupational Exposure Limits (SCOEL) on 22 of the 33 substances is available from the UK Health and Safety Executive (HSE) on request.

In 2005, the Control of Substances Hazardous to Health (Amendment) Regulations 2004 introduced a single new WEL value for substances hazardous to health, replacing both occupational exposure standards (OESs) and maximum exposure limits (MELs, see ***SHE6833***). These WELs are listed in *EH40/2005* (see ***SHE7022***).

In most instances, national limits will be identical, if not more stringent than the IOELVs. In extreme circumstances, the HSC may consider establishing a WEL, which is substantially higher than the EU IOELV. In certain cases, the HSC proposals do differ from those in the IOELV Directive. For 14 of the 33 substances, the existing WELs are identical to or higher than the proposed IOELVs, therefore no changes will be necessary. In order to comply with the proposed IOELVs, it will be necessary to make reductions to the WELs for ten substances (this will include 2-aminoethanol, nitric acid and nitrobenzene).

New 8-hour TWAs and/or STELs will be necessary for seven substances (this includes 2-(2-butoxyethoxy) ethanol and 2-(2-methoxyethoxy) ethanol). Currently, there are no WELs for pentane, isopentane and neopentane, but they do have guidance values of 600 ppm. The HSC is proposing that this guidance value of 600 ppm be adopted as a WEL, rather than the recommended IOELV of 1000 ppm. WELs in line with the recommended 8-hour TWA IOELVs are proposed for diphosphorus pentoxide and phosphine (both these substances are currently subject to a STEL but not a WEL).

For four substances there is no need to change the 8-hour time-weighted average (TWA) WEL, but a change to the short-term exposure limit (STEL) is proposed. For example, for toluene, the adoption of a STEL of 100 ppm is proposed (the current value is 150 ppm). For three substances, bromine, diphosphorus pentasulphide and phosphorus pentachloride, minor changes to improve occupational health are being proposed, even though no changes are necessary to comply with the Directive. Skin notations have also been adopted for several substances. The HSC proposes to impose the new limits on 6 April 2007. For further details please see the ***Substance Monitor***.

Comments on the proposals should be returned to the Health and Safety Executive by 27 September 2006, and can be e-mailed to: ***steve.mason@hse.gsi.gov.uk***

Proposals to implement the second list of indicative occupational exposure limit values (European Directive 2006/15/EC) (consultative document)
Health and Safety Commission
***Health and Safety Executive**, July 2006, 74 pp*

Exposure Monitoring

SHE7696

Direction of airflow for best ventilation in spray paint booths

This study examined the ventilation in painting booths with pits using digital airflow simulation methods. These pits are used when painting the underside of a vehicle chassis. In particular, two types of ventilation in the pit were compared:

- ascending vertical ventilation - obtained by the introduction of new air through a grating in the bottom of the pit; and
- downward vertical ventilation - obtained by extraction of air through this grating.

In certain spraying positions the painter can find himself downstream of the source and in the way of the pollutant. It was observed that in an openwork support system without a trailer bed, airflows appear to be notably different from those of the traditional closed cabins of painting, in which the painter is positioned in a one-way vertical flow.

Digital airflow simulation in painting booths with ventilated pits (in French)
Robert Braconnier
***Hygiene et securite du travail - Cahiers de Notes Documentaires**, June 2006, No 203, pp 47-65*

SHE7697

France: occupational exposure to formaldehyde

This article examines the use and occupational exposure to formaldehyde in France. Formaldehyde is employed in the synthesis of a variety of products and can be found in the composition of resins and varnishes. Occupations in which workers are most frequently exposed to formaldehyde include the health care professions and wood panel production.

Despite a significant decline in the levels of occupational exposure to formaldehyde since 1987, this study reveals that exposures still frequently exceed the recommended occupational exposure limits (see ***SHE7512***). This article notes that as well as exposure to products that intentionally contain formaldehyde, one should not neglect exposure to secondary sources released, for example, from the thermal degradation of plastics.

Some manufacturers are recommending the use of 1,3,5-trioxane as a replacement for formaldehyde, because it is recognised as a stable and easily handled source of anhydrous formaldehyde. 1,3,5-Trioxane is, however, classified toxic for reproduction category 3 in Europe.

The German Federal Institute for Risk Assessment (BfR) and France have both made recommendations to the European Commission to classify formaldehyde as carcinogenic to humans (see ***SHE7639***, ***SHE6565*** and ***SHE7162***).

† In France, the short-term exposure limit (VLEP) for formaldehyde is 1.23 mg/m^3 (measured over a 15 minute period, this limit is designed to prevent the risks of immediate or short-term toxic effects). The eight hour exposure limit value is 0.61 mg/m^3.

Occupational exposure to formaldehyde in France: information retrieved from COLCHIC database (in French)
Raymond Vincent & Brigitte Jeandel
***Hygiene et securite du travail - Cahiers de Notes Documentaires**, June 2006, No 203, pp 19-33*

SHE7698

Measuring exposure to diisocyanate, HDI

This study describes the use of tape-strips attached to the surface of the skin to monitor dermal exposure to hexamethylene diisocyanate (HDI). HDI is used in the production of polyurethane paints and is released during paint spraying application in the manufacture and repair of vehicles (see ***SHE7656***, ***SHE7420*** and ***SHE6572***). Although the major route of occupational exposure is thought to be via inhalation (resulting in asthma due to sensitisation, see ***SHE6628***), dermal exposure has been linked to contact dermatitis in humans.

The use of tape-strips attached to the surface of the skin provides the potential to quantify the amount of HDI that has penetrated into the outermost layer of the epidermis (the stratum corneum) as well as the amount of HDI on the skin. Liquid chromatography-mass spectrometry (LC-MS) was used to analyse the tape strips. NIOSH (US National Institute for Occupational Safety and Health) method 5521, normally employed when samples are collected from the air, was adapted for the analysis. Tape-strip samples and air samples were collected from an autobody shop where spray painting takes place. The adapted method was found to be 25 times more sensitive than NIOSH method 5521, such that picomoles of HDI on the tape could be detected. It is concluded that tape-strip sampling can be used to quantify dermal exposure to HDI.

Tape-strip sampling for measuring dermal exposure to 1,6-hexamethylene diisocyanate
Kenneth W Fent et al.
***Scand J Work Environ Health**, June 2006, 32(3), pp 225-231*

SHE7699

Occupational exposure to CCA-based wood preservatives

This study was designed to determine the extent of occupational exposure to arsenic and chromium in the UK timber treatment industry, where copper chrome arsenate (CCA) wood preservatives might be used. Urine samples were analysed for chromium and inorganic arsenic over a period of two years at six monthly intervals. To monitor daily variations, a subset of samples were collected over a period of three weeks.

Workers exposed to CCA wood preservatives displayed concentrations of inorganic arsenic and chromium that are significantly higher than people not exposed to this preservative. However, the levels detected were below biological monitoring guidance values. Over the two years of the study the levels of chromium were found to increase.

See ***SHE7468*** for details of a study to assess whether CCA residue, analysed and collected from CCA-treated wood in previous studies, is representative of that to which humans are actually exposed in the environment.

Biomonitoring for chromium and arsenic in timber treatment plant workers exposed to CCA wood preservatives
J. Cocker, J. Morton, N. Warren, J.P. Wheeler & A.N.I. Garrod
***Ann Occup Hyg**, July 2006, 50(5), pp 517-525*

Occupational Hygiene

SHE7700

Beware of latex

The recent report of compensation awarded to an employee who was invalided out of her employment after developing a latex (glove) allergy, through occupational exposure, is a stark reminder to both employers and employees of latex allergies. Repeated exposure to natural rubber (NRL) latex gloves may result in allergic reactions and sensitisation (see ***SHE2587***).

The proteins naturally present in NRL cause the allergies either through direct contact with the skin or by inhalation of powder from powdered latex gloves. In addition to latex allergies, those that use chemicals in the workplace should be aware that such gloves do not necessarily provide adequate protection from certain chemicals. Personal protective equipment should always be selected appropriate to its particular use (see ***SHE7609***). Under the Control of Substances Hazardous to Health Regulations 2002, employers have a duty to control exposure to chemicals and protect workers' health (see ***SHE5471***).

Employee awarded £260 000 after developing latex allergy
***Workplace Law Network**, 3 July 06, 1 p*

SHE7701

Industrial Injuries Advisory Council calls for evidence

The Industrial Injuries Advisory Council (IIAC)† is currently undertaking two reviews of occupational risk. These reviews concern:

- chronic obstructive pulmonary disease (COPD); and
- nasopharyngeal cancer due to exposure to wood dust.

COPD is currently prescribed as disease PD D12 (i.e. chronic bronchitis and emphysema) in miners with at least 20 years' exposure to coal dust underground. The intention of the review is to ascertain whether current research provides evidence of occupational causation in other groups of workers sufficient to meet the terms of prescription. Evidence about occupational risks or exposures for COPD should be submitted no later than *31 August 2006*. There is mounting evidence to suggest that many cases of COPD may be attributed workplace exposure to dusts, noxious gases, vapours and fumes (see ***SHE7032***).

The second review is being conducted to evaluate whether current scientific and medical evidence justifies adding nasopharyngeal cancer due to exposure to wood dust to the list of prescribed diseases. Evidence about occupational risks or exposures for nasopharyngeal cancer due to exposure to wood dust should be submitted no later than *30 September 2006*. Links between nasopharyngeal cancer and occupational exposure to formaldehyde and wood dusts have been reported (see ***SHE7162***, ***SHE6565*** and ***SHE4062***). For both reviews, comments can be returned to the same e-mail address:

iiac@dwp.gsi.gov.uk

† The IIAC is an independent body which advises the Secretary of State for Work and Pensions on the industrial injuries scheme, which provides weekly compensation for people injured at work because of industrial accidents and prescribed diseases.

Chronic obstructive pulmonary disease / Nasopharyngeal cancer due to wood dust review - call for evidence
***The Industrial Injuries Advisory Council**, 2006, 1+1 pp*

SHE7702

Potentially explosive atmospheres: harmonised European Standards for equipment and protective systems - update

The European Commission has recently issued a communication that updates the list of harmonised standards under Directive 94/9/EC, concerning equipment and protective systems for use in potentially explosive atmospheres. This listing is issued at regular intervals, and the main standards referred to were itemised in the 2003 listing (***SHE5682***). A revised list with expiry dates for some of the standards was published in January 2004 (see ***SHE6192***). Some of the standards that were issued in 2004 and 2005 are described in ***SHE7518***.

Four new standards have been issued in 2006, two of which are relevant to the printing and coatings industries:

- EN 1010-2:2006: Safety of machinery - safety requirements for the design and construction of printing and paper converting machines - Part 2: printing and varnishing machines including pre-press machinery.
- EN 12621:2006: Machinery for the supply and circulation of coating materials under pressure - safety requirements.

The title of a third standard, EN 14491:2006, is Dust explosion venting protective systems. The fourth standard issued in 2006, EN 14678-1:2006 is relevant to LPG equipment and accessories.

As a reminder the following two standards both expired on 1 July 2006:

- EN 50019:2000: Electrical apparatus for potentially explosive atmospheres - increased safety 'e'; as replaced by EN 60079-7:2003: Electrical apparatus for explosive gas atmospheres - Part 7: Increased safety 'e'.
- EN 50021: 1999: Electrical apparatus for potentially explosive atmospheres - type of protection 'n'; as replaced by EN 60079-15:2003: Electrical apparatus for explosive gas atmospheres - Part 15: Type of protection 'n'.

Commission communication in the framework of the implementation of Directive 94/9/EC ... on the approximation of laws ... concerning equipment and protective systems intended for use in potentially explosive atmospheres
European Commission
***OJ**, 20 July 06, 49(C168), pp 6-12*

SHE7703

Prescribed diseases and metalworking fluids

The UK Industrial Injuries Advisory Council (IIAC) has made a recommendation for the prescribed disease (PD) extrinsic allergic alveolitis to include work involving exposure to metalworking fluid mists. Prescribed diseases are covered by the terms of the Industrial Injuries Disablement Benefit Scheme. A disease may only be prescribed if there is a recognised risk to workers in an occupation, and the link between disease and occupation can be established, or reasonably presumed in individual cases. There are two ways in which a disease can be attributed to an occupation with reasonable confidence: clinical features or epidemiological evidence of a doubling of risk.

With the inclusion of exposure to metalworking fluid mists the full list of scheduled occupations associated with extrinsic allergic alveolitis will be exposure to moulds or fungal spores or heterologous proteins by reason of employment in:

- agriculture, horticulture, forestry, cultivation of edible fungi or metalworking;
- loading or unloading or handling in storage of mouldy vegetable matter or edible fungi;
- caring for or handling birds;
- handling bagasse;
- exposure to metalworking fluid mists.

The IIAC is an independent body which advises the Secretary of State for Work and Pensions on the industrial injuries scheme, which provides weekly compensation for people injured at work because of industrial accidents and prescribed diseases.

Changes to schedule of prescribed diseases - Extrinsic Allergic Alveolitis
Department for Work and Pensions
***Government News Network**, 12 July 06, 2 pp*

SHE7704

UNICE wants focus on existing health and safety legislation

The Union of Industrial and Employers' Confederation of Europe (UNICE) has issued a position paper on priorities for the future Community strategy on health and safety at work. UNICE believes that the existing legislative framework is already extremely complex, and that rather than add to this complexity with new legislation, it would be better to focus on simplifying existing legislation and improving its implementation.

New regulations should only be introduced, when it is identified as the only possible and most adequate means to address an occupational safety and health challenge on the basis of scientific evidence. Some of the recommendations for improving implementation of existing legislation include:

- provision of practical guidance for all existing legislative provisions;
- development of other supportive tools;
- increasing coherence between occupational safety and health and other EU policies to ensure that regulations such as Reach are coherent with occupational safety and health requirements and do not create critical overlaps, confusion or legal uncertainties.

Improving education and training in order to create a preventive culture both in and out of the workplace are also recommended.

Priorities for the future Community strategy on health and safety at work (position paper)
***Union of Industrial and Employers' Confederation of Europe**, 7 June 06, 4 pp*

Accident Prevention

SHE7705

Fire safety guides for UK businesses

The Department for Communities and Local Government (DCLG)† has now published eight of the eleven fire safety guides that are necessary for the new Fire Safety Order, due to come into force on 1 October 2006 (see ***SHE7522*** and ***SHE7286***). The Order made in June 2005, was due to come into force in April 2006, but in January, the Office of the Deputy Prime Minister (ODPM) announced that the date was to be put back to provide businesses with more time to prepare for the new Order (see ***SHE7431***). In brief the new law will:

- emphasise the prevention of fires and reducing the risks;
- make it the responsibility of the 'person responsible' for the premises to ensure the safety of everyone who uses the premises and immediate vicinity; and
- abolish the requirement for a fire certificate.

The guidance notes have been developed to provide the information necessary to comply with fire safety law, this includes how to conduct a fire risk assessment and to identify general fire precautions. It is noted that complex premises may require fire risk assessment by someone experienced in that area. The following guidance documents are now available or are being developed:

- Offices and shops (ISBN 9781851128150)
- Factories and warehouses (ISBN 9781851128167)
- Premises providing sleeping accommodation (ISBN 9781851128174)
- Residential care premises (ISBN 9781851128181)
- Educational premises (ISBN 9781851128198)
- Small and medium places of assembly (ISBN 9781851128204)
- Large places of assembly (ISBN 9781851128211)
- Theatres and cinemas (ISBN 9781851128228)
- Outdoor events (guidance is currently being developed)
- Healthcare premises (guidance is currently being developed)
- Transport premises and facilities (guidance is currently being developed)

Print versions of the guidance can be purchased for £12 per publication or guidance can be downloaded for free from the DCLG website:

http://www.communities.gov.uk

In addition to the eight formal guides, the DCLG has also produced an 'entry level guide', *Regulatory reform (Fire safety) order 2005 - a short guide to making your premises safe from fire*, for those responsible for fire safety in small and medium sized businesses. This guidance is available free of charge from the DCLG Publications and can also be downloaded as a PDF.

† The Department for Communities and Local Government was created on 5 May 2006. It unites the communities and civil renewal functions previously undertaken by the Home Office, with responsibility for regeneration, neighbourhood renewal and local government (previously held by the ODPM).

Fire safety law for businesses
***DCLG**, June 2006, 1 p*

SHE7706

Germany: reporting incidents involving chemicals

The German Federal Institute for Risk Assessment (BfR) has developed a form for the notification of health data in conjunction with industrial and transport accidents, specifically where chemical substances are involved. These forms will collate information on:

- concentration of substances released into the air;
- intoxication symptoms;
- routes of intake (e.g. dermal, inhalation or oral);
- protective measures taken;
- measurements of substances in blood and urine.

This information will be used to estimate the possible long-term health consequences for the individuals affected. This will include public in the vicinity of the incident and emergency response staff. Up to now, only technical data following industrial or transport incidents involving chemicals were comprehensively and systematically documented. The forms can be downloaded from the BfR website under 'intoxications': ***http://www.bfr.bunde.de***

In the UK, under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 1995, employers have a legal duty to notify and report on work-related accidents, diseases and dangerous occurrences to the relevant enforcing authority for their work activity (see ***SHE7433***).

Health effects should be systematically recorded for industrial and transport accidents involving chemicals!
***BfR**, 7 July 06, 1 p*

SHE7707

Health and safety - risk management

The UK Health and Safety Executive (HSE) has revamped its online guidance for risk assessment in the workplace. Risk assessment is important not only for the protection of workers but also for compliance with legislation. This guidance includes the five steps to risk assessment:

- Step 1: identify the hazards
- Step 2: decide who might be harmed and how
- Step 3: evaluate the risks and decide on precaution
- Step 4: record your findings and implement them
- Step 5: review your assessment and update if necessary

Four examples of risk assessment that involve a variety of activities and potential hazards are described for the following environments and activities:

- an office
- a motor vehicle repair shop
- a warehouse
- contract bricklayers

In preparing a risk assessment for motor vehicle repair, to assist in the identification of the hazards, it is recommended that the person putting together the assessment refer to the HSE's Motor Vehicle Repair web pages, the Health and Safety in Motor Vehicle repair booklet and *Essentials of health and safety at work* (see ***SHE7614***). This example focuses on mechanical rather than body repair. There is also a section on Frequently asked questions, and links to good practice guidance for a particular industry. More information can be found on the HSE risk assessment pages at:

http://www.hse.gov.uk/risk/

The HSE has also revised its five-steps to risk assessment leaflet, INDG163.

It was reported in the July issue of *Health and Safety at Work* that Guardian Newspapers has recently settled a claim for repetitive strain injury to one of its former night editors. It is claimed that the company did not complete a risk assessment when the editor took up employment with them in 2001.

HSE publishes revamped guidance to simplify risk assessments
***Health and Safety Executive (UK)**, July 2006, 1 p*

WORLDWIDE TRENDS

The Americas

SHE7708

Canada: addition of polybrominated diphenyl ethers to CEPA, 1999

Canadian Ministers of the Environment and Health have made a recommendation for the addition of polybrominated diphenyl ethers (PBDEs) that have the molecular formula $C_{12}H_{(10-n)}Br_nO$ (in which $4 \leq n \leq 9$) to the Canadian Environmental Protection Act, 1999. The addition of decabrominated diphenyl ether ($C_{12}Br_{10}O$) has also been recommended.

A summary of the screening assessment on seven PBDEs (tetra- to deca-BDE) is included in the recommendation published in the *Canada Gazette Part 1*. PBDEs are used in Canada as additive flame retardants in a wide variety of consumer products. There are data indicative that tetra-, penta- and hexa-BDEs are highly bioaccumulative and therefore satisfy the criteria for bioaccumulation as described in the CEPA 1999 Persistence and Bioaccumulation Regulations.

There is some evidence to suggest that highly brominated PBDEs such as octa- and deca-BDE are precursors of the more toxic, bioaccumulative and persistent lower brominated PBDEs (see ***SHE7682*** and ***SHE7641***). It is concluded that PBDEs (tetra- to deca-BDE), which are found in commercial penta-, octa- and deca-BDEs, are entering the environment in a quantity or under conditions that have or may have an immediate or long-term harmful effects on the environment or its biological diversity and hence may be included in CEPA, 1999.

In view of the proposed recommendation to add PBDEs to Schedule I to CEPA 1999, based on environmental considerations, more in-depth evaluation of PBDEs from a human health perspective is considered a low priority, unless information becomes available to indicate that measures recommended to control exposure of environmental organisms to PBDEs will not protect human health.

Publication of final results of investigations and recommendations for the substance - decabrominated diphenyl ether that has the molecular formula $C_{12}Br_{10}O$
Department of Health, Department of Environment
***Canada Gazette Part I**, 1 July 06, 140 (26), pp 1851-1855*

SHE7709

Canada: proposal to add PFOS and its salts to CEPA, 1999

Canadian Ministers of the Environment and of Health propose to recommend that perfluorooctane sulfonate (PFOS) and its salts be added to Schedule 1 to the Canadian Environmental Protection Act (CEPA), 1999. This recommendation follows a screening assessment of PFOS, its salts and precursors. In January 2005, notice was given by the Minister of the Environment that information was required on PFOS, its salts and about 50 precursors in order to assess whether to control and the manner, in which to control the aforementioned substances (see ***SHE6890***). In particular, it is PFOS, its salts, precursors and compounds that contain one of the following groups that are to be added to CEPA, 1999:

- $C_8F_{17}SO_2$
- $C_8F_{17}SO_3$
- $C_8F_{17}SO_2N$

Consultations will now be held on the development of a regulation or instrument with respect to the appropriate preventive or control action necessary for these substances.

Publication of final decision on the screening assessment of substances - perfluorooctane sulfonate and its salts
Department of Health, Department of Environment
***Canada Gazette Part I**, 1 July 06, 140 (26), pp 1846-1851*

SHE7710

Health effects of particulate matter exposure

The US Environmental Protection Agency has announced the availability of an EPA report, *Provisional assessment of recent studies on health effects of particulate matter exposure*. In January 2006, the EPA published a proposed rule to make revisions to the primary and secondary national ambient air quality standards (NAAQS) for particulate matter (see ***SHE7439***). The revisions are designed to further protect public health and welfare. This report includes the EPA's provisional assessment of studies relevant to assessing the health effects of particulate matter that were published too recently to be included in the 2004 PM Air Quality Criteria Document (AQCD). The focus of the provisional assessment was on:

- epidemiological studies conducted in the USA or Canada that assessed exposures to $PM_{2.5}$ and/or $PM_{10-2.5}$
- toxicology or epidemiology studies that compared the effects of PM from different sources, PM components, or size fractions

It is concluded that the new studies provide important insights into the health effects as a consequence of exposure to particulate matter, but the results do not alter the overall scientific conclusions as regards the health effects of PM exposure made in the 2004 PM AQCD. Some of the new epidemiologic studies report effects in areas with lower concentrations of $PM_{2.5}$ or $PM_{10-2.5}$ than earlier reports. This new report is available from the National Center for Environmental Assessment (NCEA) website at:

http://cfpub.gov.epa/ncea

In March 2006, the American Chemistry Council announced its opposition to the proposed revisions to the NAAQS for fine particulate matter ($PM_{2.5}$, i.e. particles less than 2.5 micrometres in diameter), see ***SHE7526***.

Availability of additional information related to the review of national ambient air quality standards for particulate matter
US EPA
***Fed Reg**, 21 July 06, 71(140), pp 41409-41410*

SHE7711

USA: NESHAPs for miscellaneous organic chemical manufacturing

In November 2003, the US Environmental Protection Agency published a Final Rule on National Emission Standards for Hazardous Air Pollutants (NESHAPs) emitted by miscellaneous organic chemical manufacturing facilities (see ***SHE6156***). This classification includes producers of speciality organic chemicals and certain polymers and resins. Several petitions for judicial review of the final rule were filed and subsequently in December 2005, proposed amendments to address these issues were published (see ***SHE7424***). The subjects of these petitions were as follows:

- applicability of specific operations and processes;
- leak detection and repair requirements for connectors;
- criteria to define affected wastewater streams requiring control;
- control requirements for wastewater streams that contain only soluble HAP;
- the definition of process condensers;
- record-keeping requirements for Group 2 batch process vents.

The EPA has now amended the final rule taking the above issues into account, and at the same time has corrected inconsistencies that were revealed during the review process. The amendments include provisions that will reduce the burden associated with demonstrating compliance. The final amendments exempt additional polymer finishing operations from subpart FFFF. The amendments replace requirements for 'PM (particulate matter) HAP' with those for 'HAP metals', such that the emissions threshold above which control is required has been changed from 400 pounds per year (lb/yr) of PM HAP to 150 lb/yr of HAP metals. Several of the requirements for wastewater have also been changed. For example, the definition of the term 'point of determination' (POD) has been changed to specify that the point where effluent is discharged from a scrubber or other control device is a POD.

During the review process one respondent expressed concern about the potential overlap and conflict between the applicability provisions in the miscellaneous organic chemical manufacturing NESHAP (40 CFR part 63, subpart FFFF) and the miscellaneous coating manufacturing NESHAP (40 CFR part 63, subpart HHHH). To this end, changes to the term 'coating' in the miscellaneous coating manufacturing NESHAP have been proposed (see ***SHE7619***). The proposed amendments clarify that coating manufacturing means the production of coatings by mixing and blending but *not* to reaction or separation processes used in chemical manufacturing.

In March 2006, it was announced that the compliance date for existing sources had been extended by 18 months to 10 May 2008 (see ***SHE7528***). The MON Resource Center, which was developed by Dixon Environmental to provide guidance for MON regulatory compliance went online at the end of April 2004 (see ***SHE6423***).

National emission standards for hazardous air pollutants; miscellaneous organic chemical manufacturing (final rule; amendments)
US EPA
***Fed Reg**, 14 July 06, 71(135), pp 40315-40342*

SHE7712

USA: dibutyl phthalate toxicological review

During July, the US Environmental Protection Agency released an external draft of a toxicological review of dibutyl phthalate (di-n-butyl phthalate) to be examined by experts at a peer review workshop. At the same time, a period of public comment was held on the document. The EPA will take into account comments and recommendations from the expert panel meeting and the public when finalising the draft document. Peer review of such documents is necessary in order to ensure that credible science is employed in the derivation of dose-response assessments and toxicological characterisation. The final dose-response assessment of dibutyl phthalate will appear on the Integrated Risk Information System (IRIS) database.

Draft toxicological review of dibutyl phthalate (di-n-butyl phthalate) in support of the summary information in IRIS
US EPA
***Fed Reg**, 27 June 06, 71(123), pp 36525- 36526*

SHE7713

USA: dichlorobenzene toxicological review

The US Environmental Protection Agency released a draft toxicological review of dichlorobenzenes to be examined by an expert peer review panel in August 2006. A period of public comment is also being held on the draft document. Information related to the inhalation reference concentration (RfC) and inhalation cancer assessment for 1,4-dichlorobenzene in the draft are to be considered for inclusion in the Integrated Risk Information System (IRIS) database. IRIS contains scientific Agency positions on potential adverse human health effects that may result from chronic (or lifetime) exposure to specific chemical substances found in the environment.

When supported by available data, the database provides RfCs and oral reference doses (RfDs) for chronic health effects, and oral slope factors and inhalation unit risks for carcinogenic effects. The current IRIS assessment for 1,4-dichlorobenzene was placed on the database in 1994 and contains an inhalation RfC. The scope of the current external peer review and public comment period is limited to information on a chronic inhalation bioassay published in the peer review literature in 2005, and therefore not included in the 2004 external peer review draft.

Draft toxicological review of dichlorobenzenes in support of summary information on the Integrated Risk Information System (IRIS)
US EPA
***Fed Reg**, 11 July 06, 71(132), pp 39113-39115*

SHE7714

USA: safe exposure levels for lead?

In May 2006, the US Environmental Protection Agency released a second external review draft on air quality criteria for lead for public comment.† Lead is one of six 'criteria' pollutants for which the EPA has established air quality criteria and national ambient air quality standards (NAAQS). In November 2004, the EPA formally initiated its current review of the criteria and NAAQS for lead and in March 2006, EPA published its plans and schedule for the review of the air quality criteria and NAAQS for lead (see ***SHE7532***). The final draft of the air quality criteria document for lead is to be completed no later than 1 October 2006.

The Society for Protective Coatings reports that because the definition of 'low-level, long-term exposure' has evolved, the EPA is inclined to state that no safe exposure level exists.

† Release of the second external review draft was announced in the *Federal Register*, vol 71(97), pp 29152-29153, on 19 May 2006, the period for public comment closed on 27 June 2006. The second external review draft is available from the National Center for Environmental Assessment:

http://cfpub.epa.gov/ncea

EPA draft document indicates no safe exposure level for lead
***The Society for Protective Coatings**, July 06, 1 p*

Asia Pacific

SHE7715

Australia: occupational cancer is underestimated

New estimates of the occupational causes of cancer in Australia reveal that as many as 5000 invasive cancers per year may be caused by occupational exposure. This figure is much higher than previous estimates, which were based on the classic 1981 Doll/Peto study. The Doll and Peto study attributes four per cent of cancer deaths to occupational exposure.

This study by the Queensland Cancer Fund and University of Sydney calculates that 11% of all cancers in men and 2% of cancers in women can be linked to occupation. These figures exclude non-melanoma skin cancer, of which 34 000 cases per year are attributed as being caused by occupational exposure. Overall, it is estimated that 1.5 million workers are exposed to known carcinogens, but exposure to a carcinogen does not necessarily mean that there is a high risk of contracting cancer.

Those industries that have the highest percentages of exposed workers include forestry and logging and the manufacture of furniture and fixtures. However, because of the large number of workers employed in the following industries, agriculture and hunting, construction, wholesale and retail trade and restaurants and real estate, although the percentage of workers exposed is lower, the actual number of workers exposed to carcinogens is much higher than the industries with the highest percentages of exposure.

It is concluded that the importance of occupation as a cause of cancer should receive greater attention in order to prevent future cancers. Several recommendations to improve the estimates in this study are made including the development of a definitive and complete list of all carcinogens used in industry in Australia. This study also reveals that current occupational health and safety regulations may not be sufficient to protect workers.

In the UK, the Trades Union Congress has also reported that rates of occupational cancers and associated deaths are vastly underestimated by the UK Health and Safety Executive (HSE), see ***SHE7425***. This again, is attributed in part to basing estimates on the 1981 Doll and Peto study.

Cancer due to occupation in Australia
Lin Fritschi & Tim Driscoll
***Aust NZ J Public Health**, June 2006, 30(3), pp 213-219*

SHE7716

Continued use of lead-based paint is a global problem

This article highlights the continued production of lead-based paint for consumer use with limits that exceed US regulations in India, China and Malaysia. Eighty paint samples of various colours and brands were collected from India, China, Malaysia and Singapore and analysed to determine the lead content. More than 50 per cent of the samples from India, China and Malaysia were found to contain 5000 ppm or more of lead. In the USA, the nonvolatile or dry content of new paints marketed for residential use must contain less than 600 ppm of lead. Levels of lead in paint collected from Singapore, where there are regulations to control the amount of lead used, were found to be much lower with less than 10% of samples exceeding the US limit.

It was noted in this two-year study that for the same brand, some manufacturers produced paint that was within US lead limits for sale in other countries while continuing to sell the lead-based version in another. Malaysia has no law in place to regulate the sale of paints that contain hazardous ingredients, therefore the onus is on companies to ensure that they formulate products with 'safe' ingredients (see ***SHE7247***). In India there are guidelines for the levels of lead in soil but not for paint (see ***SHE6888***). In July 2002, it was reported that a restriction of 500 ppm aromatics content in all paints and coating materials was to be introduced in China (see ***SHE5341***). It was also reported that the use of other chemicals such as such as mercury, cadmium, and arsenic was to be limited.

It is concluded that "American companies need to encourage their international collaborators to demand lower lead contents in consumer products".

This research, which is in press, was published online on 16 June 2006 in *Environmental Research*, the print version is due to be published in September 2006. The title and authors are as follows: **The lead content of currently available new residential paint in several Asian countries**, C.S. Clark *et al.*

Study supports 'urgent' need for worldwide ban on lead-based paint
***University of Cincinnati**, 17 July 06, 2 pp*

SHE7717

Environmental protection in China

In June 2006, the Information Office of the State Council of the People's Republic of China released the country's second white paper on environmental protection since 1996. China's rapid economic development since the late 1970s has been matched with environmental problems that other countries encountered over a longer period of industrialisation. To the extent that the fine balance between the environment and development is such that environmental problems may now hinder development. Environmental protection is therefore key to any future development.

Efforts introduced in recent years to protect the environment with a focus on preventive measures have helped to slow down ecological destruction but the resources consumed and amount of pollution have increased. There have been other improvements in terms of environmental pollution control and environmental quality. This paper has been released in order to improve the understanding that other countries have of the efforts made by China in environmental protection over the past ten years. The paper is divided into the following sections:

- Environmental protection legislation and system
- Prevention and control of industrial pollution
- Pollution control in key regions
- Protection of the urban environment
- Protection of the rural environment
- Ecological protection and construction
- Economic policy and investment concerning the environment
- Environmental impact assessment
- Environmental science and technology, industry and public participation
- International cooperation in environmental protection conclusion

Below is a summary of environmental legislation

- Since 1949 the National People's Congress and its Standing Committee have formulated nine laws on environmental protection and 15 laws on the protection of natural resources.
- Since 1996 the State has formulated or revised laws on environmental protection, such as those on prevention and control of water pollution.
- The State Council has formulated or revised 50 administrative regulations, such as Regulations on the Safety Management of Dangerous Chemicals.

Relevant departments of the State Council, local people's congresses and governments have formulated and promulgated over 660 central and local rules and regulations in order to implement the national laws and administrative regulations on environmental protection. By the end of 2005, the State had promulgated over 30 local environmental protection standards. China has constantly strengthened checks on the enforcement of environmental legislation, and improved administrative law enforcement. As regards the prevention and control of industrial pollution there is a change in strategy from the control of end pollution to control of the origin and whole process of pollution.

Despite all of these efforts and many more, high profile incidents continue to make news headlines worldwide. For example, on Sunday 9 July, it was reported that approximately 160 people had been affected by a chlorine gas leak from a private chemical company (Ningxia Xin'erte Chemical Company) located in the Xixia District of Yinchuan.

It has also been briefly reported (*BBC News online*, 11 July 2006) that the State Environmental Protection Administration has warned that such pollution incidents will increase, if safety at chemical and petrochemical plants is not improved.

Environmental protection in China (1996-2005)
Information Office of the State Council of the People's Republic of China
***State Environmental Protection Administration (SEPA)**, June 2006, 26 pp*

SUBSTANCE MONITOR

1,1-Dichloroethane **CAS No: 75-34-3** **EEC No: 200-863-5**	1,1-Dichloroethane is now assigned to pregnancy Group C (previously in Group D) in the 2006 MAK and BAT values (i.e. poses no threat to embryos) as long as the MAK value of 100 ppm (410 mg/m^3) is complied with	*AlphaGalileo (DFG Press release)* ***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
1,2,3-Trichloropropane **CAS No: 96-18-4**	1,2,3-Trichloropropane is on the Tier 1 ACGIH TLV under study list and may move forward with an NIC proposal in 2007	***American Conference of Government Industrial Hygienists**, 21 June 06, 2+2 pp* **SHE7693**
1,2,4-Trichlorobenzene **CAS No: 120-82-1** **EEC No: 204-428-0**	1,2,4-Trichlorobenzene is on the list of priority substances in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
	Consultation on the transposition of Directive 2005/59/EC on restrictions on the marketing and use of trichlorobenzene in the UK	***Department for Environment, Food and Rural Affairs**, 21 July 06, 1+64 pp* **SHE7690**
1,2-Dichloroethane **CAS No: 107-06-2** **EEC No: 203-458-1**	1,2-Dichloroethane is on the list of priority substances in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
1,3,5-Trioxane **CAS No: 110-88-3** **EEC No: 203-812-5**	1,3,5-Trioxane, sometimes used as a replacement for formaldehyde is classified as toxic for reproduction category 3 in Europe	*Raymond Vincent & Brigitte Jeandel* ***Hygiene et securite du travail - Cahiers de Notes Documentaires**, June 2006, No 203, pp 19-33* **SHE7697**
1,4-Dichlorobenzene **CAS No: 106-46-7** **EEC No: 203-400-5**	The ACGIH BEI Committee encourages the submission of new data on 1,4-dichlorobenzene, a feasibility assessment was completed in March 1994	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
1,6-Hexamethylene diisocyanate **CAS No: 822-06-0**	*see Hexamethylene diisocyanate*	*Kenneth W Fent et al.* ***Scand J Work Environ Health**, June 2006, 32(3), pp 225-231* **SHE7698**
1-Ethoxy-2-acetoxypropane **CAS No: 54839-24-6**	A MAK value of 50 ppm (300 mg/m^3) is established for 1-ethoxy-2-acetoxy-propane in the 2006 MAK and BAT values, pregnancy Group C applies	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**

2-(2-Butoxyethoxy) ethanol **CAS No: 112-34-5** **EEC No: 203-961-6**	*See Diethylene glycol monobutyl ether*	*Health and Safety Commission* ***Health and Safety Executive**, July 2006, 74 pp* **SHE7695**
2-(2-Methoxyethoxy) ethanol **CAS No: 111-77-3** **EEC No: 203-906-6**	*See Diethylene glycol monomethyl ether*	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
2-Butoxyethanol **CAS No: 111-76-2** **EEC No: 203-905-0**	2-Butoxyethanol is assigned a new MAK value of 10 ppm (49 mg/m^3), carcinogenic category 4 and remains in Group C as harmful during pregnancy in the 2006 MAK and BAT values	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
2-Ethoxyethanol **CAS No: 110-80-5** **EEC No: 203-804-1**	2-Ethoxyethanol is removed from the ACGIH TLV Under study list	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
2-Ethoxyethyl acetate **CAS No: 111-15-9** **EEC No: 203-839-2**	2-Ethoxyethyl acetate is removed from the ACGIH TLV Under study list	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
2-Ethylhexyl acrylate (2EHA) **CAS No: 103-11-7** **EEC No: 203-080-7**	2-Ethylhexyl acrylate is assigned a new MAK value of 5 pm (38 mg/m^3) and has also been assigned to pregnancy Group C in the 2006 MAK and BAT values	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
2-Methylbutane **CAS No: 78-78-4** **EEC No: 201-142-8**	The HSC proposes to introduce an 8-hour TWA WEL of 600 ppm (1800 mg/m^3), which is the current guidance value for 2-methylbutane (isopentane)	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
2-[2-(2-Hydroxyethoxy)ethoxy]ethanol **CAS No: 112-27-6**	A MAK value of 1000 mg/m^3 is established for 2-[2-(2-hydroxyethoxy)-ethoxy]ethanol in the 2006 MAK and BAT values, pregnancy Group C applies	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
4-Methylpent-3-en-2-one **CAS No: 141-79-7**	The MAK value for 4-methylpent--3-en-2-one has changed from 25 ppm to 5 ppm (100 to 20 mg/m^3) in the 2006 MAK and BAT values, it is assigned to pregnancy Group D	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Acetaldehyde **CAS No: 75-07-0** **EEC No: 200-836-8**	Acetaldehyde is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Acetonitrile **CAS No: 75-05-8** **EEC No: 200-835-2**	To comply with the 2nd IOELV Directive, the HSC proposes retaining the existing 8-hour TWA limit (40 ppm) and STEL (60 ppm) for acetonitrile but adding a skin notation	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Acrylamide **CAS No: 79-06-1** **EEC No: 201-173-7**	Acrylamide is skin sensitising and remains in carcinogen and mutagen categories 2 in the 2006 MAK and BAT values, it is still labelled with the warning 'H', toxic on inhalation or skin absorption	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**

Acrylonitrile **CAS No: 107-13-1** **EEC No: 203-466-5**	The ACGIH BEI Committee encourages the submission of new data on acrylonitrile, a feasibility assessment was completed in March 1994	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Aluminium **CAS No: 7429-90-5** **EEC No: 231-072-3**	Aluminium and compounds are on the Tier 1 ACGIH TLV under study list and may move forward with an NIC proposal in 2007, aluminium is on the Tier 2 ACGIH BEI under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Aniline + salts **CAS No: 062-53-3** **EEC No: 200-539-3**	Aniline is listed as carcinogenic category 4 (i.e. is of no serious risk if within the MAK value of 2 ppm) and is in pregnancy group C in the 2006 MAK and BAT values	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Anthracene **CAS No: 120-12-7** **EEC No: 204-371-1**	Anthracene has been identified as a priority hazardous substance in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
Antimony **CAS No: 7440-36-0** **EEC No: 231-146-5**	The ACGIH BEI Committee encourages the submission of new data on antimony, a feasibility assessment was completed in November 1996	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Arsenic **CAS No: 7440-38-2** **EEC No: 231-148-6**	Workers exposed to CCA wood preservatives have significantly higher levels of inorganic arsenic and chromium in their urine but this is below biological monitoring guidance values	*J. Cocker, et al.* ***Ann Occup Hyg**, July 2006, 50(5), pp 517-525* **SHE7699**
Atrazine **CAS No: 1912-24-9**	Atrazine is on the list of priority substances in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
	Atrazine is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Barium **CAS No: 7440-39-3** **EEC No: 231-149-1**	To comply with the 2nd IOELV Directive, the HSC proposes retaining the existing 8-hour TWA limit of 0.5 mg/m^3 for barium	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Benz(a)pyrene **CAS No: 50-32-8** **EEC No: 200-028-5**	Benz(a)pyrene is on the list of priority substances in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
	Benz(a)pyrene is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Benzene **CAS No: 71-43-2** **EEC No: 200-753-7**	Benzene is on the list of priority substances in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**

Beryllium **CAS No: 7440-41-7** **EEC No: 231-150-7**	Beryllium is on the Tier 2 ACGIH BEI under study list and will not move forward with an NIC proposal in 2007, The ACGIH BEI Committee encourages the submission of new data, a feasibility assessment was completed in September 2002	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Biocides	UK Health and Safety Executives lists new approvals for surface biocides and wood preservatives	***Health and Safety Executive**, July 2006, 55 pp* **SHE7692**
Bis(2-ethylhexyl) phthalate **CAS No: 117-81-7** **EEC No: 204-211-0**	Bis(2-ethylhexyl) phthalate is on the list of priority substances in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
Brominated flame retardants (brominated diphenyl oxides, diphenols, cyclic compounds, etc)	A special issue of the journal *Chemosphere* is devoted to papers presented at the Third International Workshop on Brominated Flame Retardants held in Toronto, Canada, June 2004	*Edited by M. Alaee* ***Chemosphere**, June 2006, 64(2), pp 179- 338* **SHE7680**
	Deca-BDE anaerobic degradation to octa-BDE does not necessarily lead to lower and more persistent PBDE congeners in the environment	***Bromine Science and Environmental Forum (BSEF)**, 15 June 06, 2 pp* **SHE7682**
	Recommendation for the addition of certain polybrominated diphenyl ethers (PBDEs) to CEPA, 1999	*Department of Health, Department of Environment* ***Canada Gazette Part I**, 1 July 06, 140 (26), pp 1851-1855* **SHE7708**
Butyl acrylate **CAS No: 141-32-2** **EEC No: 205-480-7**	Butyl acrylate is assigned to pregnancy Group C in the 2006 MAK and BAT values (i.e. poses no threat to embryos) as long as the MAK value of 2 ppm (11 mg/m^3) is complied with	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Cadmium + compounds	Cadmium and its compounds have been identified as a priority hazardous substance in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
Carbon black **CAS No: 1333-86-4** **EEC No: 215-609-9**	Carbon black is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Carbon dioxide **CAS No: 124-38-9** **EEC No: 204-696-9**	To comply with the 2nd IOELV Directive, the HSC proposes retaining the existing 8-hour TWA limit (5000 ppm) and STEL (15 000 ppm) for carbon dioxide	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Carbon disulphide **CAS No: 75-15-0**	Carbon disulphide is on the Tier 1 ACGIH BEI under study list and may move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**

Carbon tetrachloride **CAS No: 56-23-5** **EEC No: 200-262-8**	Carbon tetrachloride is one of eight pollutants in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
	Carbon tetrachloride is assigned to pregnancy Group C in the 2006 MAK and BAT values (i.e. poses no threat to embryos) as long as the MAK value of 0.5 ppm (3.2 mg/m^3) is complied with	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Chlorine **CAS No: 7782-50-5** **EEC No: 231-959-5**	To comply with the 2nd IOELV Directive, the HSC proposes to withdraw the existing 8-hour TWA limit of 0.5 ppm and to reduce the STEL to 1 ppm for chlorine	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Chloroalkanes (C10-C13) **CAS No: 85535-84-8**	Chloroalkanes(C_{10-13}) have been identified as a priority hazardous substance in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
Chloroethane **CAS No: 75-00-3**	*See Ethyl chloride*	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Chloroform **CAS No: 67-66-3** **EEC No: 200-663-8**	Chloroform is on the list of priority substances in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
Chromated copper arsenate	Workers exposed to CCA wood preservatives have significantly higher levels of inorganic arsenic and chromium in their urine but this is below biological monitoring guidance values	*J. Cocker, et al.* ***Ann Occup Hyg**, July 2006, 50(5), pp 517-525* **SHE7699**
Chromium + compounds **CAS No: 7440-47-3** **EEC No: 231-157-5**	To comply with the 2nd IOELV Directive, the HSC proposes retaining the existing 8-hour TWA limit of 0.5 mg/m^3 for chromium	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
	Workers exposed to CCA wood preservatives have significantly higher levels of inorganic arsenic and chromium in their urine but this is below biological monitoring guidance values	*J. Cocker, et al.* ***Ann Occup Hyg**, July 2006, 50(5), pp 517-525* **SHE7699**
Copper + compounds **CAS No: 7440-50-8** **EEC No: 231-159-6**	Copper is assigned to pregnancy Group C in the 2006 MAK and BAT values (i.e. poses no threat to embryos) as long as the MAK value of 0.1 mg/m^3 is complied with	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Creosote **CAS No: 8001-58-9** **EEC No: 232-287-5**	Creosote is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Cresols **CAS No: 1319-77-3** **EEC No: 215-293-2**	Cresols are on the Tier 1 ACGIH TLV under study list and may move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**

Cyclohexane **CAS No: 110-82-7** **EEC No: 203-806-2**	To comply with the 2nd IOELV Directive, the HSC proposes retaining the existing 8-hour TWA limit of 100 ppm (350 mg/m^3) and STEL of 300 ppm (1050 mg/m^3) for cyclohexane	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Di(2-ethylhexyl) phthalate **CAS No: 117-81-7** **EEC No: 204-211-0**	*see Bis(2-ethylhexyl) phthalate*	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
Di-n-butyl phthalate **CAS No: 84-74-2** **EEC No: 201-557-4**	*see Dibutyl phthalate*	*US EPA* ***Fed Reg**, 27 June 06, 71(123), pp 36525- 36526* **SHE7712**
Dibutyl phthalate **CAS No: 84-74-2** **EEC No: 201-557-4**	Draft toxicological review of dibutyl phthalate (di-n-butyl phthalate) in support of the summary information in IRIS	*US EPA* ***Fed Reg**, 27 June 06, 71(123), pp 36525- 36526* **SHE7712**
Dichloromethane **CAS No: 75-09-2** **EEC No: 200-838-9**	*see Methylene chloride*	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
Dicyclopentadiene **CAS No: 77-73-6** **EEC No: 201-052-9**	Dicyclopentadiene is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Diethanolamine **CAS No: 111-42-2** **EEC No: 203-868-0**	Diethanolamine is on the Tier 1 ACGIH TLV under study list and may move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
	Diethanolamine is assigned a new MAK value of 1 mg/m^3 and has been moved from carcinogenic category 3A to 3B in the 2006 MAK and BAT values. It has also been assigned to pregnancy Group C	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Diethylamine **CAS No: 109-89-7** **EEC No: 203-716-3**	To comply with the 2nd IOELV Directive, the HSC proposes changing the 8-hour TWA limit to 5 ppm (15 mg/m^3) and the STEL to 10 ppm (30 mg/m^3) for diethylamine	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Diethylene glycol monobutyl ether **CAS No: 112-34-5** **EEC No: 203-961-6**	Diethylene glycol monobutyl ether is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
	To comply with the 2nd IOELV Directive, the HSC proposes adopting an 8-hour TWA limit of 10 ppm (67.5 mg/m^3) and a STEL of 15 ppm (101.2 mg/m^3) for diethylene glycol monobutyl ether	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Diethylene glycol monoethyl ether **CAS No: 111-90-0** **EEC No: 203-919-7**	A MAK value of 50 mg/m^3 is established for diethylene glycol monoethyl ether in the 2006 MAK and BAT values, pregnancy Group C applies	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**

Diethylene glycol monomethyl ether **CAS No: 111-77-3** **EEC No: 203-906-6**	To comply with the 2nd IOELV Directive, the HSC proposes adopting an 8-hour TWA limit of 10 ppm (50.1 mg/m^3) and adding a skin notation for diethylene glycol monomethyl ether	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Diethylenimide oxide **CAS No: 110-91-8** **EEC No: 203-815-1**	To comply with the 2nd IOELV Directive, the HSC proposes changing the 8-hour TWA limit to 10 ppm (36 mg/m^3) and the STEL to 20 ppm (72 mg/m^3) for diethylenimide oxide and retaining the skin notation	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Dimethoxymethane **CAS No: 109-87-5** **EEC No: 203-714-2**	Dimethoxymethane is assigned to pregnancy Group C in the 2006 MAK and BAT values (i.e. poses no threat to embryos) as long as the MAK value of 1000 ppm (3200 mg/m^3) is complied with	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Dimethyl formamide **CAS No: 68-12-2** **EEC No: 200-679-5**	Dimethyl formamide is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Dipropylene glycol (mixture of isomers) **CAS No: 25265-71-8** **EEC No: 246-770-3**	A MAK value of 200 mg/m^3 is established for dipropylene glycol in the 2006 MAK and BAT values, pregnancy Group C applies	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Dust	Wood dusts are on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Ethanol **CAS No: 64-17-5** **EEC No: 200-578-6**	Ethanol is on the Tier 1 ACGIH TLV under study list and may move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Ethanolamine **CAS No: 141-43-5** **EEC No: 205-483-3**	To comply with the 2nd IOELV Directive, the HSC proposes changing the 8-hour TWA limit to 1 ppm (2.5 mg/m^3) and the STEL to 3 ppm (7.6 mg/m^3) for ethanolamine and adding a skin notation	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Ethyl 3-ethoxypropionate **CAS No: 763-69-9**	A MAK value of 100 ppm (610 mg/m^3) is established for ethyl 3-ethoxy-propionate in the 2006 MAK and BAT values, pregnancy Group C applies	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Ethyl acrylate (EA) **CAS No: 140-88-5** **EEC No: 205-438-8**	Ethyl acrylate is assigned to pregnancy Group C in the 2006 MAK and BAT values (i.e. poses no threat to embryos) as long as the MAK value of 5 ppm (21 mg/m^3) is complied with	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Ethyl benzene **CAS No: 100-41-4** **EEC No: 202-849-4**	Ethyl benzene is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**

Ethyl chloride **CAS No: 75-00-3**	To comply with the 2nd IOELV Directive, the HSC proposes retaining the existing 8-hour TWA limit of 50 ppm for ethyl chloride	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Ethyl cyanoacrylate **CAS No: 7085-85-0** **EEC No: 230-391-5**	Ethyl cyanoacrylate is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Ethyl ether **CAS No: 60-29-7** **EEC No: 200-467-2**	There are no changes to the entry for ethyl ether in the 2006 MAK and BAT values	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Formaldehyde **CAS No: 50-00-0** **EEC No: 200-001-8**	A review of occupational exposure to formaldehyde in France - despite a decline in exposure since 1987, occupational exposure still exceeds OELs in many instances	*Raymond Vincent & Brigitte Jeandel* ***Hygiene et securite du travail - Cahiers de Notes Documentaires**, June 2006, No 203, pp 19-33* **SHE7697**
Hexachlorobenzene **CAS No: 118-74-1** **EEC No: 214-273-6**	Hexachlorobenzene has been identified as a priority hazardous substance in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
Hexachlorobutadiene **CAS No: 87-68-3**	Hexachlorocyclobutadiene has been identified as a priority hazardous substance in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
Hexachlorocyclohexane **CAS No: 608-73-1** **EEC No: 210-168-9**	Hexachlorocyclohexane has been identified as a priority hazardous substance in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
Hexamethylene diisocyanate **CAS No: 822-06-0**	The use of tape-strips and LC-MS to monitor dermal exposure to hexamethylene diisocyanate	*Kenneth W Fent et al.* ***Scand J Work Environ Health**, June 2006, 32(3), pp 225-231* **SHE7698**
Hydrazine + salts **CAS No: 302-01-2** **EEC No: 206-114-9**	The ACGIH BEI Committee encourages the submission of new data on hydrazines, a feasibility assessment was completed in October 1995	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Hydrogen sulphide **CAS No: 7783-06-4** **EEC No: 231-977-3**	The MAK value for hydrogen sulphide has changed from 10 ppm to 5 ppm (14 to 7.1 mg/m^3) in the 2006 MAK and BAT values, it is also assigned to pregnancy Group C	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Isopentane **CAS No: 78-78-4** **EEC No: 201-142-8**	*See 2-Methylbutane*	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Isophorone diisocyanate (IPDI) **CAS No: 4098-71-9** **EEC No: 223-861-6**	Isophorone diisocyanate is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**

Lead + compounds **CAS No: 7439-92-1** **EEC No: 231-100-4**	Lead and its compounds are on the list of priority substances in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
	Suspicion of the mutagenic effect on germ cells (category 3A) by lead is confirmed and it has been assigned to carcinogenic category 2 (carcinogenic in animal tests) in the 2006 MAK and BAT values	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
	Study supports 'urgent' need for worldwide ban on lead-based paint	***University of Cincinnati**, 17 July 06, 2 pp* **SHE7716**
Maleic anhydride (MA) **CAS No: 108-31-6** **EEC No: 203-571-6**	Maleic anhydride is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Manganese **CAS No: 7439-96-5** **EEC No: 231-105-1**	Manganese and inorganic compounds are on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007. The ACGIH BEI Committee encourages the submission of new data, a feasibility assessment was completed in October 1993	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Mercury + compounds **CAS No: 7439-97-6** **EEC No: 231-106-7**	Mercury and its compounds have been identified as a priority hazardous substance in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
	Mercury, alkyl compounds are on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Mesityl oxide **CAS No: 141-79-7**	*See 4-Methylpent-3-en-2-one*	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Methanol **CAS No: 67-56-1** **EEC No: 200-659-6**	Methanol is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
	To comply with the 2nd IOELV Directive, the HSC proposes retaining the existing 8-hour TWA limit of 200 ppm (266 mg/m^3) and STEL of 250 ppm (333 mg/m^3) for methanol	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Methyl butyl ketone **CAS No: 591-78-6** **EEC No: 209-731-1**	The ACGIH BEI Committee encourages the submission of new data on methyl butyl ketone, a feasibility assessment was completed in September 2005	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Methyl ethyl ketone (MEK) **CAS No: 78-93-3** **EEC No: 201-159-0**	Methyl ethyl ketone is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**

Methyl formate **CAS No: 107-31-3** **EEC No: 203-481-7**	The ACGIH BEI Committee encourages the submission of new data on methyl formate, a feasibility assessment was completed in November 1996	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Methyl iodide **CAS No: 74-88-4**	Methyl iodide is assigned with the warning label 'H', absorption through skin and inhalation can contribute to toxicity, in the 2006 MAK and BAT values	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Methyl isoamyl ketone **CAS No: 110-12-3** **EEC No: 203-737-8**	Methyl isoamyl ketone is on the Tier 1 ACGIH TLV under study list and may move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Methyl isobutyl ketone (MIBK) **CAS No: 108-10-1** **EEC No: 203-550-1**	Methyl isobutyl ketone is on the Tier 1 ACGIH TLV under study list and may move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Methyl n-amyl ketone **CAS No: 110-43-0** **EEC No: 203-767-1**	Methyl n-amyl ketone is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Methyl tert-butyl ether **CAS No: 1634-04-4** **EEC No: 216-653-1**	The ACGIH BEI Committee encourages the submission of new data on methyl tert-butyl ether, a feasibility assessment was completed in October 1995	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Methylcyclohexane **CAS No: 108-87-2** **EEC No: 203-624-3**	Methylcyclohexane is assigned to pregnancy Group D in the 2006 MAK and BAT values (i.e. a classification cannot be made from the available data). The MAK value of 200 ppm (810 mg/m^3) remains unchanged	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Methylene bis-(4-cyclohexyl isocyanate) **CAS No: 5124-30-1** **EEC No: 225-863-2**	Methylene bis-(4-cyclohexyl isocyanate) is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Methylene chloride **CAS No: 75-09-2** **EEC No: 200-838-9**	Methylene chloride is on the list of priority substances in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
Morpholine **CAS No: 110-91-8** **EEC No: 203-815-1**	*see Diethylenimide oxide*	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
n,n'-Dimethylacetamide **CAS No: 127-19-5** **EEC No: 204-826-4**	N,N'-Dimethylacetamide is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
n-Hexane **CAS No: 110-54-3** **EEC No: 203-777-6**	To comply with the 2nd IOELV Directive, the HSC proposes retaining the existing 8-hour TWA limit of 20 ppm (72 mg/m^3) for n-hexane	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**

Nanoparticles	Symposium on 'chemical safety and nanomaterials'	*Various* ***Umweltbundesamt (Austria)**, 1 June 06, 1 p* **SHE7681**
	UK nanotechnology policy review is announced	*Department of Trade and Industry* ***GNN**, 6 July 06, 3 pp* **SHE7683**
Naphthalene **CAS No: 91-20-3** **EEC No: 202-049-5**	Naphthalene is on the list of priority substances in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
	Naphthalene is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Nickel + compounds **CAS No: 7440-02-0** **EEC No: 231-111-4**	Nickel and its compounds are on the list of priority substances in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
	The ACGIH BEI Committee encourages the submission of new data on nickel, a feasibility assessment was completed in November 1995	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Nitric acid **CAS No: 7697-37-2** **EEC No: 231-714-2**	To comply with the 2nd IOELV Directive, the HSC proposes to withdraw the existing 8-hour TWA limit of 2 ppm and to reduce the STEL to 1 ppm for nitric acid	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Nitrobenzene **CAS No: 98-95-3** **EEC No: 202-716-0**	To comply with the 2nd IOELV Directive, the HSC proposes to withdraw the existing STEL of 2 ppm and to reduce the 8-hour TWA to 0.2 ppm (1 mg/m^3) for nitrobenzene	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Nitrosamines	N-Nitrosodiphenylamine is added to the 2006 MAK and BAT values and assigned to carcinogenic category 3B	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Nitrotoluenes	The MAK values for 3- and 4-nitrotoluene are suspended and they are classified as carcinogenic category 3B in the 2006 MAK and BAT values	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Nonylphenol **CAS No: 25154-52-3** **EEC No: 246-672-0**	Nonylphenols have been identified as a priority hazardous substance in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
o-Toluidine **CAS No: 95-53-4** **EEC No: 202-429-0**	o-Toluidine is assigned to carcinogen category 1 and mutagen category 3A in the 2006 MAK and BAT values	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Particulates	Availability of additional information related to the review of national ambient air quality standards for particulate matter in the USA	*US EPA* ***Fed Reg**, 21 July 06, 71(140), pp 41409-41410* **SHE7710**

Pentachlorophenol (PCP) **CAS No: 87-86-5** **EEC No: 201-778-6**	Pentachlorophenol is on the list of priority substances in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
	Pentachlorophenol is on the Tier 2 ACGIH TLV and BEI under study lists and will not move forward with an NIC proposals in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Pentaerythritol **CAS No: 115-77-5** **EEC No: 204-104-9**	Pentaerythritol is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Pentane **CAS No: 109-66-0** **EEC No: 203-692-4**	Pentane is assigned to pregnancy Group C in the 2006 MAK and BAT values (i.e. poses no threat to embryos) as long as the MAK value of 1000 ppm (3000 mg/m^3) is complied with	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
	The HSC proposes to introduce an 8-hour TWA WEL of 600 ppm (1800 mg/m^3), which is the current guidance value for pentane	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Pentane-2,4-dione **CAS No: 123-54-6** **EEC No: 204-634-0**	A MAK value of 20 ppm (83 mg/m^3) is established for pentane-2,4-dione in the 2006 MAK and BAT values, pregnancy Group C applies	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Perchloroethylene **CAS No: 127-18-4** **EEC No: 204-825-9**	Perchloroethylene is one of eight pollutants in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
	Perchloroethylene is on the Tier 2 ACGIH BEI under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Perfluorocarbons	EU Parliament's Environment Committee adopts a report that would restrict the use of PFOS and PFOA	***European Parliament**, 13 July 06, 1 p* **SHE7686**
Perfluorooctanoic acid **CAS No: 335-67-1**	EU Parliament's Environment Committee adopts a report that would restrict the use of PFOS and PFOA	***European Parliament**, 13 July 06, 1 p* **SHE7686**
	Perfluorooctanoic acid is on the Tier 2 ACGIH BEI under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
	A new BAT vaue of 5 mg/l is assigned to perfluorooctanoic acid in the 2006 MAK and BAT values	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Phthalic anhydride (PA) **CAS No: 85-44-9** **EEC No: 201-607-5**	Phthalic anhydride is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**

Poly-aromatic hydrocarbons	Poly-aromatic hydrocarbons have been identified as a priority hazardous substance in the proposed Directive that will set environmental quality standards for surface water	***Europa press release**, 18 July 06, IP/06/1007, 2 pp* **SHE7674**
Polycyclic aromatic hydrocarbons	Consultation on the transposition of Directive 2005/69/EC on restrictions on the marketing and use of polycyclic aromatic hydrocarbons in the UK	***Department for Environment, Food and Rural Affairs**, 21 July 06, 1+64 pp* **SHE7690**
	Polycyclic aromatic hydrocarbons are on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Polyvinyl chloride **CAS No: 9002-86-2**	Polyvinyl chloride is on the Tier 1 ACGIH TLV under study list and may move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Propylene glycol monoethyl ether **CAS No: 1569-02-4**	A MAK value of 50 ppm (220 mg/m^3) is established for propylene glycol monoethyl ether in the 2006 MAK and BAT values, pregnancy Group C applies	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Resorcinol **CAS No: 108-46-3**	To comply with the 2nd IOELV Directive, the HSC proposes retaining the existing 8-hour TWA limit of 10 ppm (46 mg/m^3) and STEL of 20 ppm (92 mg/m^3) for resorcinol but adding a skin notation	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
sec-Butyl acetate **CAS No: 105-46-4** **EEC No: 203-300-1**	sec-Butyl acetate is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Selenium **CAS No: 7782-49-2** **EEC No: 231-957-4**	The ACGIH BEI Committee encourages the submission of new data on selenium, a feasibility assessment was completed in April 1999	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Silver **CAS No: 7440-22-4** **EEC No: 231-131-3**	To comply with the 2nd IOELV Directive, the HSC proposes retaining the existing 8-hour TWA limit of 0.01 mg/m^3 for silver (soluble compounds as Ag)	*Health and Safety Commission* ***HSE**, July 2006, 74 pp* **SHE7695**
Surfactants	EC Regulation 907/2006 amends Regulation 648/2004 as regards the biodegradation of surfactants in detergents	*European Commission* ***OJ**, 21 June 06, 49(L168), pp 5-10* **SHE7691**
Talc **CAS No: 14807-96-6** **EEC No: 238-877-9**	Talc, containing no asbestos fibres is on the Tier 1 ACGIH TLV under study list and may move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
tert-Butanol **CAS No: 75-65-0** **EEC No: 200-889-7**	tert-Butanol is assigned to pregnancy Group C in the 2006 MAK and BAT values (i.e. poses no threat to embryos) as long as the MAK value of 20 ppm (62 mg/m^3) is complied with	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**

tert-Butyl acetate **CAS No: 540-88-5**	tert-Butyl acetate is assigned to pregnancy Group C in the 2006 MAK and BAT values (i.e. poses no threat to embryos) as long as the MAK value of 20 ppm (96 mg/m^3) is complied with	***Deutsche Forschungsgemeinschaft***, *19 July 06, 2+14 pp* **SHE7694**
Tetrachloroethylene **CAS No: 127-18-4** **EEC No: 204-825-9**	*see Perchloroethylene*	***Europa press release***, *18 July 06, IP/06/1007, 2 pp* **SHE7674**
Tetrachloromethane **CAS No: 56-23-5** **EEC No: 200-262-8**	*see Carbon tetrachloride*	***Deutsche Forschungsgemeinschaft***, *19 July 06, 2+14 pp* **SHE7694**
Thiram **CAS No: 137-26-8** **EEC No: 205-286-2**	Thiram is assigned a new MAK value of 1 mg/m^3 (a change from 5 mg/m^3) and has been assigned to pregnancy Group C in the 2006 MAK and BAT values	***Deutsche Forschungsgemeinschaft***, *19 July 06, 2+14 pp* **SHE7694**
Titanium dioxide **CAS No: 13463-67-7** **EEC No: 236-675-5**	Titanium dioxide is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH***, *21 June 06, 2+2 pp* **SHE7693**
Toluene **CAS No: 108-88-3** **EEC No: 203-625-9**	Toluene is on the Tier 1 ACGIH BEI under study list and may move forward with an NIC proposal in 2007	***ACGIH***, *21 June 06, 2+2 pp* **SHE7693**
	To comply with the 2nd IOELV Directive, the HSC proposes retaining the existing 8-hour TWA limit of 50 ppm (191 mg/m^3) but reducing the STEL to 100 ppm (384 mg/m^3) for toluene	*Health and Safety Commission* ***HSE***, *July 2006, 74 pp* **SHE7695**
Tributyltin compounds (TBT) **EEC No: 211-704-4**	Tributyltin compounds have been identified as a priority hazardous substance in the proposed Directive that will set environmental quality standards for surface water	***Europa press release***, *18 July 06, IP/06/1007, 2 pp* **SHE7674**
Trichlorobenzene **CAS No: 12002-48-1**	Trichlorobenzene is on the list of priority substances in the proposed Directive that will set environmental quality standards for surface water	***Europa press release***, *18 July 06, IP/06/1007, 2 pp* **SHE7674**
Trichloroethylene **CAS No: 79-01-6** **EEC No: 201-167-4**	Trichloroethylene is one of eight pollutants in the proposed Directive that will set environmental quality standards for surface water	***Europa press release***, *18 July 06, IP/06/1007, 2 pp* **SHE7674**
	Trichloroethylene is on the Tier 1 ACGIH BEI under study list and may move forward with an NIC proposal in 2007	***ACGIH***, *21 June 06, 2+2 pp* **SHE7693**
Trichloromethane **CAS No: 67-66-3** **EEC No: 200-663-8**	*see Chloroform*	***Europa press release***, *18 July 06, IP/06/1007, 2 pp* **SHE7674**
Triethanolamine **CAS No: 102-71-6** **EEC No: 203-049-8**	Triethanolamine is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH***, *21 June 06, 2+2 pp* **SHE7693**

Triethylene glycol **CAS No: 112-27-6**	*see 2-[2-(2-Hydroxyethoxy)ethoxy]-ethanol*	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Trimellitic anhydride (TMA) **CAS No: 552-30-7** **EEC No: 209-008-0**	Trimellitic anhydride is on the Tier 1 ACGIH TLV under study list and may move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Trimethylamine **CAS No: 75-50-3** **EEC No: 200-875-0**	Trimethylamine is assigned to pregnancy Group C in the 2006 MAK and BAT values (i.e. poses no threat to embryos) as long as the MAK value of 2 ppm (4.9 mg/m^3) is complied with	***Deutsche Forschungsgemeinschaft**, 19 July 06, 2+14 pp* **SHE7694**
Trimethylbenzene (all isomers) **CAS No: 25551-13-7** **EEC No: 247-099-9**	The ACGIH BEI Committee encourages the submission of new data on trimethyl-benzene, a feasibility assessment was completed in August 2002	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Vanadium pentoxide **CAS No: 1314-62-1** **EEC No: 215-239-8**	Vanadium pentoxide is on the Tier 2 ACGIH BEI under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Vinyl acetate **CAS No: 108-05-4** **EEC No: 203-545-4**	Vinyl acetate is on the Tier 2 ACGIH TLV under study list and will not move forward with an NIC proposal in 2007	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**
Vinyl chloride **CAS No: 75-01-4** **EEC No: 200-831-0**	The ACGIH BEI Committee encourages the submission of new data on vinyl chloride	***ACGIH**, 21 June 06, 2+2 pp* **SHE7693**

LIST OF ABBREVIATIONS AND TITLES

ACGIH American Confederation of Government Industrial Hygienists

Ann Occup Hyg Annals of Occupational Hygiene

Aust NZ J Public Health Australian and New Zealand Journal of Public Health

BfR German Federal Institute for Risk Assessment

BSEF Bromine Science and Environmental Forum

Canada Gazette Part I

Chemosphere

CIA Chemical Industries Association (UK)

DCLG Department for Communities and Local Government (UK)

DFG Deutsche Forschungsmeinschaft

ECB European Chemicals Bureau

Environment Agency (UK)

European Commission

European Parliament

Fed Reg Federal Register (USA)

GNN Government News Network

HSC Health and Safety Commission

HSE Health and Safety Executive (UK)

IIAC Industrial Injuries Advisory Council (UK)

ISO International Organization for Standardization

OJ Official Journal of the European Union

SEPA State Environmental Protection Administration (China)

Scand J Work Environ Health Scandinavian Journal of Work and Environmental Health

Toxicology

UNICE Union of Industrial and Employers' Confederation of Europe

US EPA US Environmental Protection Agency

Workplace Law Network

WWF