Solutions

Issue 9 • Autumn 2002

News from the European Solvents Industry Group

Communicating Simply on Solvents

Over the coming months ESIG will launch a new initiative to provide clear, easy to understand safety stickers to attach to drums containing solvents. The stickers, which are the result of collaboration with national Health and Safety officials, solvent users and distributors, have been developed to provide a simple way to communicate safety and environmental messages. The instructional stickers will be made available in 11 EU languages.

The commitment

There are many applications for which only solvents can provide the high product performance necessary. However, the very properties that guarantee such quality may also lead to solvent evaporation and potential human and environmental exposure. Therefore, the handling of solvents in the workplace must be correctly understood and managed.

ESIG is committed to best practice and Responsible Care for the safe use of solvents in the workplace.

Feedback from solvent users has highlighted that material safety data sheets (MSDSs), although comprehensive, are often overly technical and complex to use.

The dual challenge

ESIG's primary objective is to communicate clear safety and environmental protection messages to solvent users in a form that can be readily understood. ESIG is constantly upgrading and improving its Responsible Care programme to share best practice and highlight key messages.

- It is crucial that where a gap in information is identified by solvent users, materials are developed to meet this need
- It is then essential that these materials are received by solvent users

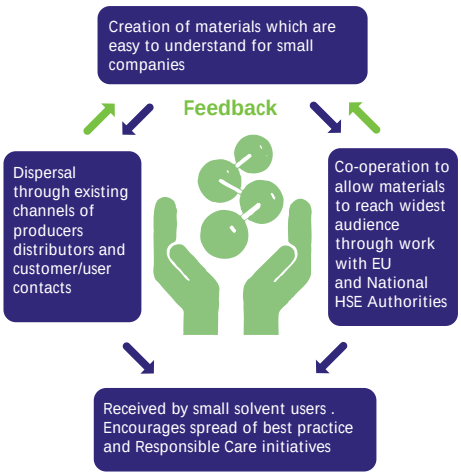
It is with both these objectives in mind that ESIG has developed its safety stickers.

Key Input

ESIG has had positive response from many regulatory bodies, including EU regulators from the Directorate General for the Environment, Directorate General for Health, representatives of the Health and Safety Advisory Committee, and the Health and Safety government bodies of several EU Member States. It is essential that these guidelines work in harmony with national legislation, which is why the success of the initiative depends on input from Member State Authorities.

The Key Audience

Small and medium enterprises are the key audience for this initiative. These simple instructional stickers should be more beneficial for the smaller or less frequent users of solvents who would otherwise often have to interpret overly complicated documents. ESIG will be working closely with distributors to ensure the effective delivery of these key safety messages.



In order that the safety instructions are not separated from the product, the sticker will be attached directly to the product container itself.

The label has already been successfully tested with UK distributors and has received favourable feedback from the UK Health and Safety Executive: "The HSE welcomes any initiative that increases the awareness of both the employer and employee of the measures that should be taken to reduce exposure. The simple drum sticker, which is being tested by the European Solvents Industry Group, is one such measure that provides information direct to the user. It should have a positive impact on solvent users."

Feedback from customers has been equally as positive, with comments such as the "pictures tell a strong story", and that it will be "good help to aid safer handling." Commenting on this feedback, ESIG Chairman Bert Fokkema explained, "We find the results most encouraging. This initiative complements our existing efforts to extend product stewardship so that even the smallest companies can be provided with clear guidance on the safe use of solvents in the workplace. We plan to extend this programme and are looking forward to co-operation with other distributors and customers." ●

If you are a solvent user, a regulator or another interested party, and wish to learn more about this initiative , please contact Pierre de Kettenis, ESIG Secretariat at CEFIC on +32 2 676 72 11.

Solvent Emissions Directive taking shape at national level

The 15 countries of the European Union are finalising their transposition of the Solvent Emissions Directive, the process of converting EU legislation into national law. Although this process has taken longer than planned, this will not delay the final date by which companies have to comply with the new legislation, 1 January 2007.

The Solvent Emissions Directive was agreed in Brussels by EU environment ministers in 1999. The directive will reduce the emissions of volatile organic compounds (VOCs) from industrial processes by 66% compared to 1990. One of the most complex pieces of legislation created by the EU, this directive covers more than 400,000 users of solvents. The EU regulatory bodies and ESVOCCG, a cross-industry group representing solvent producers and users, worked hard to ensure that the legislation was sufficiently flexible to allow solvent users to find the most cost-effective way to meet the legislative requirements.

At the time of Solutions going to press, seven EU countries have now completed the conversion into national law. These are Austria, Finland, France, Germany, the Netherlands, Portugal and Sweden. Countries yet to transpose are Denmark, Ireland, Italy, Spain and the UK. It is not clear whether Luxembourg and Greece have completed the process. In Belgium, the SED has been transposed by Flanders and the Brussels Capital Region, but has yet to be completed in Wallonia.

The directive gives some flexibility to individual countries to develop national laws which best fit with the profile of solvent-users in their countries.

Given that a directive that was already complicated at EU level has now been changed in some countries but not others, ESIG's advice is to check very carefully that you are able to comply with the national measures, i.e. if you have plants in more than one country, there is a slight chance that requirements may be different. National authorities will be able to give you advice in the near future. This is particularly important for those building new installations, which must comply with the legislation immediately. Managers of existing installations have more time to understand the directive and decide how best to comply.

In a new departure for EU legislation, the European Commission has developed a website (www.voc-infoex.uni-karlsruhe.de/en/index.html) designed to allow the sharing of information for those who need to meet the SED requirements. ESVOCCG, the forum for solvent producers and users, has given input into this site for the benefit of solvents users.

ESIG recognises the difficulties in complying with the different requirements of the directive. For more information, we recommend solvent users to visit ESIG's website (www.esig.org), which may be of valuable help. Here you will find copies of the directive itself, easy-to-understand guidelines on what the directive means, and options for how to comply, using ESIG's software programme, the Abatement Advisor.●

News in brief

Discovering the Facts: International Scientific Symposium on the Health Effects of Glycol Ethers – Paris 2002

This symposium took place 17-18 October 2002 in Paris. It presented an excellent forum for the international scientific community to share their knowledge on the toxicology of glycol ethers and its relevance to humans.

Scientific experts in this field of research were presenting on the objectives of the symposium, which were:

- to provide an up-to-date picture of international progress on the understanding of the toxicology of glycol ethers;
- to provide a forum to discuss with the international scientific community and other stakeholders topics of interest and furthering of the science of glycol ethers;
- to evaluate changes in the pattern of use of glycol ethers over the last two decades.

Maison de la Chimie, Paris: where the symposium took place

The symposium was organized by the European Oxygenated Solvent Producers Association (OSPA) and the American Chemistry Council's (ACC) Committee on Ethers of Ethylene and Propylene Glycol.

More information can be found at:

www.ethers-de-glycol.com
and also at www.americanchemistry.com

Advancing Best Practice

This issue of Solutions includes a copy of Best Practice Guidelines issue 3. This new publication has been developed to provide solvent users with practical guidance for measuring airborne solvent vapour concentrations in the workplace using chemical indicator tubes.

Best Practice Guidelines 3 supplements the first two guides in the series, which dealt with monitoring programmes and simple guidance to assess the need for exposure controls in the work place.

Copies can be downloaded from the ESIG website (www.esig.org) or ordered using the enclosed fax-back form.●

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Recognition of Best Practice in Solvents Use

ESIG's high profile Solvent Stewardship awards continue to encourage and recognize companies who pursue high standards and maintain best practice criteria in their solvent use.

Last year's range of entries from 11 EU member states, including many from small and medium sized enterprises, highlighted the commitment of solvent using companies to the responsible and safe use of solvents.

This year the European Chemical Industry Council (CEFIC) will host the Solvent Stewardship Awards at its conference in Barcelona on 25-26 November 2002. The conference, which focuses on Responsible Care and is entitled 'Getting the Message Across', will be held in conjunction with the European Association of Chemical Distributors (FECC).

With regard to this year's awards, Mr. John Baker, editor of European Chemical News, stated that "The solvent stewardship awards have been demonstrating best practice in action for years. 'Getting the message across' will provide the perfect backdrop for this event and we're looking forward to being there".

The CEFIC conference will provide the companies with a forum to exchange information and share best practices. Such an opportunity is integral to ensuring continued improvement in the use of chemicals Europe-wide.

2001 Awards

The winners of the 2001 Solvent Stewardship Awards were presented with their awards at the prestigious FECC conference held last year in Vienna. The winning entries were subsequently featured in leading European journals such as

Intergraf - ESIG's overall winner 2002

European Chemical News, European Coatings Journal, and also feature as case studies on responsible solvent management on the website of the European Commission's Solvent Emissions Directive (www.voc-infoex.uni-karlsruhe.de).

The overall winner of the ESIG award was Intergraf, the European Printing Federation, in conjunction with the European Graphical Federation (EGF). The award was given for their publication of an outstanding set of guidelines on printing, the environment and Best Available Techniques (BATs). The judging panel had been particularly impressed by the way that Intergraf had drawn together an international network of experts to share their knowledge, providing the most comprehensive set of guidelines possible.

Other winners presented with certificates of excellence at the awards included Jowat, an adhesive manufacturer from Germany which earned the prize for Best Product Improvement; SOPPEC of France which won Best Site Improvement, and SOFRAMAP also a French company which won Best Small and Medium Enterprise Improvement. Each of the winning entries, together with photos of the awards ceremony are featured on ESIG's website (www.esig.org).

2002 Judging Panel

This year's Solvent Stewardship Awards ceremony, which takes place during the Barcelona conference, will be chaired by ESIG Chairman, Dr Bert Fokkema. The judging panel will include, among others, representatives of DG Environment, UEAPME Environmental Affairs, UNICE, FEDICHEM, and ECN as well as CEFIC's Responsible Care director Mr. Dick Robson.●

The new Dangerous Preparations Directive: New legislation for the environmental labelling of products

The new Dangerous Preparations Directive (1999/45/EEC) came into force on 30 July 2002, requiring preparations to be classified for environmental hazards. Substances have for some time been classified for environmental effects (as well as health and physico-chemical hazards) according to the Dangerous Substances Directive (DSD; 67/548/EEC). The Dangerous Preparations Directive now extends environmental classification requirements to formulated products.

The Directive prescribes a calculation process to evaluate the environmental classification and labeling of preparations which is similar to what has been done for years for health effects. It requires the following of a step-by-step process to determine whether the product has to be classified as "dangerous for the environment" and, if necessary, carry the "dead tree/dead fish" (N) symbol.

These new classification and labelling provisions impact all solvent users who formulate products containing solvents: manufacturers of paints, inks, adhesives, detergents, cleaning agents, etc. Those users have to reassess the classification of their formulated products. In turn, the environmental classification can have significant impacts at many levels for companies, for example in packaging, marketing and storage requirements. Hydrocarbon producers have already agreed to a common classification scheme for substances, which serves as the basis to determine the environmental classification of preparations.

For more information on the requirements of the Directive visit the ESIG links page (www.esig.org) where you will be able to access the relevant page on the European Commission's website.●

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SOLVENTS @ WORK

The Sustainable Option

From painting cars to world famous monuments, life-cycle analyses now reveal that solvent-based paints can be as environmentally friendly as water-based systems. Recent developments in product technology in a number of countries have generated some interesting results to demonstrate this.

It is widely assumed that water-based paints are the environmentally conscious alternatives to solvent-based paints in terms of air quality. Although this is sometimes true, it is not always the case when life-cycle performance, cost and maintenance are taken into consideration. High-performance paints require less frequent application in order to achieve durable protection. Therefore, solvent-based paints, when applied correctly and to suitable structures, may emit less Volatile Organic Compounds (VOCs) to the environment than alternative paints, whilst sustaining equal performance levels.

Most water-based paints also contain VOCs, although in lower amounts than solvent-based paints. The following case studies show that solvent-based paints can be preferable for certain applications based on environmental considerations.

A Towering Achievement

What does it take to protect and maintain a steel structure reaching 312 meters high, weighing 73,000 tones and made up of 18,038 wrought iron parts…a monument that is constantly exposed to changing weather conditions and air pollution, and yet is admired by thousands of visitors daily? How can the beauty and resilience of

the Eiffel Tower be conserved over time? The answer: high performance, high-solid, solvent-based paints.

The recent successful bid to paint the Eiffel Tower by a well-known company producing solvent-based paints sheds some interesting light on the benefits of solvent-based products. Such success is due to the use of a high build urethane-alkyd based paint which ensures a balance based on environment, performance and cost. This solvent-based paint will efficiently protect the tower against variations in temperature, humidity and pollution for at least seven years, thus highlighting the resistance and durability of solvent-based paints.

Of Prime Importance

General Motors recently demonstrated that solvent-based products can outperform so-called "zero-VOC" powder coatings which are often assumed to be more environmentally friendly. Indeed, when General Motors carried out life-cycle analyses on a number of painting systems used as automotive primers, findings showed that a solvent-based polyester system had the lowest overall environmental impact. The second best performer was a powder polyester whilst a powder acrylic was ranked in third place (mainly because of energy consumption and CO2 emissions during manufacturing).

It is a common perception that whilst solvent-based paints are associated with long lasting performance, the alternative is a better choice in terms of environmental responsibility. However, it would appear that both solvent and water-based paints combine performance and environmental protection.

Bottom line: both solvent and water-based paints, when applied correctly and in suitable conditions, can ensure a higher degree of product sustainability and environmental performance.●

Asking questions - finding solutions

Since its formation, ESIG has committed to be the single information point for guidance on solvents-related issues in Europe. However, information needs in the solvents industry change over time.

To ensure that ESIG focuses its efforts on your information needs today, we are launching a follow-up opinion former survey. This survey is continuing research carried out in 1999, and will be conducted in the fourth quarter of 2002.

Feedback from a broad spectrum of key opinion formers will be solicited to systematically gain a better understanding how solvents, and the solvent industry in general, are perceived today. For decision-makers across the EU, the survey provides an opportunity to provide feedback on ESIG's work and to help shape and focus our communication programme. ESIG greatly appreciates feedback from those who may be contacted over the next few months - your opinions and thoughts on ESIG are very important to this process.

The findings from the forthcoming survey will be made available via the ESIG website (www.esig.org).

While only a limited number of interviews will be held as part of this survey, feedback and suggestions are always welcomed and can be submitted via the query section of www.esig.org. We look forward to hearing from you in the near future.●

Solutions is produced by the European Solvents Industry Group. All advice, information and guidance given is accurate to the best of the knowledge of ESIG and is given in good faith. However it remains at all times the responsibility of the reader/solvent user to ensure that this and other ESIG information and guidance materials are suitable for the intended situation or application. For further information please visit our website at www.esig.org or contact Pierre de Kettenis, European Solvents Industry Group, CEFIC, Avenue E. Van Nieuwenhuyse 4, bte 2, B-1160 Brussels. Tel: 32 (0) 2 676 72 64 Fax: 32 (0) 2 676 72 16 e-mail: pdk@cefic.be