

The Newsletter of the European Solvents Industry Group

IN THIS ISSUE: HEALTH & SAFETY AT WORK

Using Solvents Safely in the Workplace - European Week on Health and Safety

The European Week on Health and Safety at Work will see hundreds of events taking place throughout Europe in October 2003. ESIG plans to participate at several of these events.

European Week 2003 is an information campaign to promote activities that reduce the risk of working with dangerous substances in the workplace. The campaign is coordinated by the Bilbao-based European Agency for Safety and Health at Work and will run in all EU Member States and EU accession countries. With the backing of Member States and enlargement countries, the European Commission and Parliament, trade unions, employers, and other federations, this annual initiative has become the largest safety and health event in Europe. It provides a unique opportunity to focus attention on the importance of safety and health at work.

ESIG welcomes this initiative and will be supporting forthcoming events in countries such as Germany, Italy, Portugal and the United Kingdom. For example:

- ESIG will be disseminating various brochures, posters and guides in cooperation with third parties such as the Italian SME organisation, CONFAPI.
- In Portugal, where the safety weeks will take place from 13-17 October, ESIG is working with IDICT, the Portuguese Health Agency, to develop a brochure focusing on the safe use of solvents. IDICT will be distributing this brochure in Portugal.
- Other materials that are available include "Solvent Dos and Don'ts" posters, "Best Practice Guidelines" and "Solvents at Work" brochures. These have been specifically designed to enhance users' knowledge of safe practices, especially those in small and medium sized enterprises.

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ESIG launches new web site



The screenshots (on this front-cover) illustrate ESIG's new website which will be launched this October. The website has been given a new "look" and structure, as well as a technological upgrade to make it easier for you to find the information that you need. Another new feature is the option to register your details so that you can be informed automatically when new information is added to the website - we encourage you to make use of this option so that we can keep you alerted to any new information.

Quiz Winner

We received many correct replies to the quiz in our last newsletter and would like to thank everyone who participated. Our congratulations go to **Eva Maria Carballeira Fernandez** of COTANCE (the Confederation of National Associations of Tanners and Dressers of the European Community) who has won a weekend for two at a Hilton Hotel of her choice! The answer to the question "Which method would most efficiently reduce ozone in Europe?" was of course answer c: "reducing NOx is always effective, reducing natural VOCs is clearly impossible, reducing man made VOCs is largely ineffective".



Safety at work

Cont'd. from page 1:

Safety Data Sheets are a requirement to provide information on the safe handling of products. In addition, ESIG also provides comprehensive guidance directly to users and consumers. The following outlines a number of the materials that ESIG has produced, all of which are also available on the ESIG website (www.esig.org):



- ESIG's latest brochure "Solvents at Work" is aimed at people who are working directly with solvents and may be at risk from exposure. It outlines the main industries where solvents are used and explains how and what precautions should be taken.
- ESIG has recently issued the fourth in its series of best practice guides which covers solvent flammability. The other guides have covered topics such as how to manage exposure to solvents, and how to measure solvent vapour concentrations in the workplace.
- The ESIG stewardship awards which are presented every year to those companies that best demonstrate a high level of commitment to promoting the safe and responsible use of solvents.
- During the run-up to the Solvents Directive and its subsequent implementation, ESIG made available the VOC Abatement Advisor programme, a downloadable file that enabled users to compare the technical and economic aspects of all the main VOC abatement techniques quickly and efficiently. Using details of process streams (such as air-flow and solvent concentration) and, based on interactive questions, the programme determined the appropriate abatement method and calculated the operating and investment costs involved.

- Hydrocarbon solvent producers, have developed a model called the Air Change Index (ACI) to promote the safe use of solvent based decorative paints. The Air Change Index works on the application of one litre of paint under normal conditions, and then predicts the number of times the air needs to be changed to ensure that the solvent vapour concentration remains at safe levels. Products with a low ACI require fewer controls to maintain the work place concentration below the occupational exposure limits (OELs) and therefore easier to use safely compared to products with a high ACI.
- Oxygenated solvent producers, concerned about the higher toxicological profile of four minor glycol ether products out of a very large family of safe and commonly-used solvents, implemented strict supply chain control measures. Only approved users can receive these products for specific applications where there are no present alternatives. The measures ensure that these materials cannot find their way into any possible public consumption.
- ESIG has designed a solvent safety label with clear visual messages emphasising the "Dos and Don'ts" of solvent handling targeted at workers in small and medium sized enterprises. This label, which is planned to be available in most European languages, will be attached to packaged solvents delivered to smaller consumers, via selected distributors. Posters, based on the labels, have also been created to share the basic principles of safe solvent use.

ESIG's stewardship of solvents is to ensure that users and consumers are better informed and equipped to benefit from the unique properties that solvents impart, in a safe and responsible way.

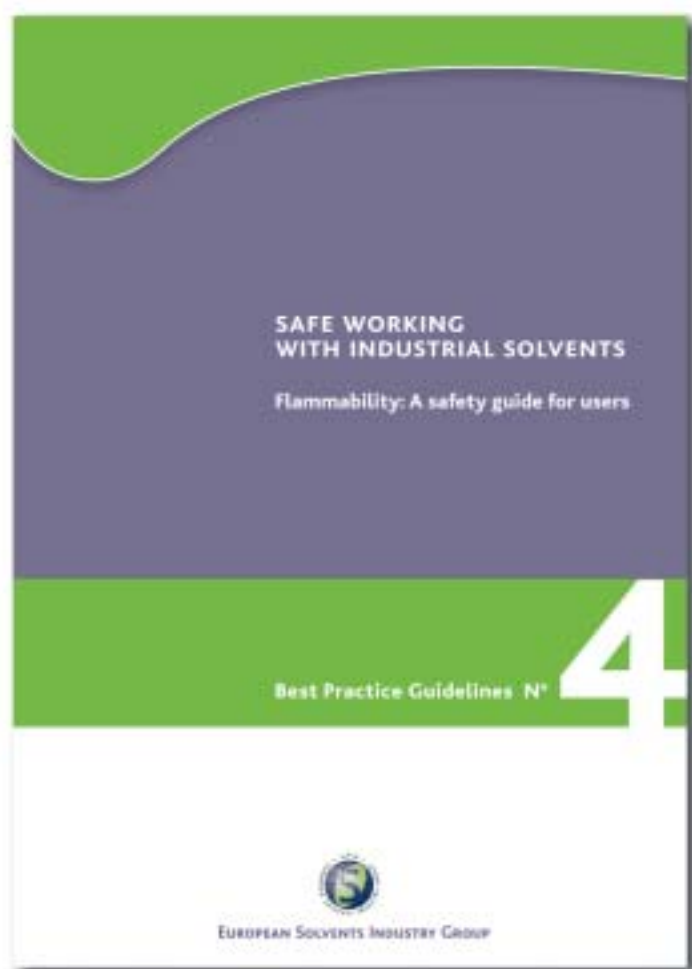
For more information on the European Week for Safety and Health at Work 2003 also see: osha.eu.int/ew2003/about/index_en.htm or visit the ESIG website: www.esig.org



ESIG launches Best Practice Guide #4: Managing flammable solvents

ESIG has published the fourth in its series of Best Practice Guides. This latest edition describes the best ways to deal with one of the main hazards of solvents, their flammability.

The guide summarises key recommendations to be considered when handling flammable products. It also details product characteristics related to flammability and looks in some depth at issues related to static electricity and to requirements that should be fulfilled during solvent handling operations.



Most solvents are considered to be hazardous because of their relatively low boiling points. This of course is a desired property in many formulations in which they are used, because the solvent must evaporate in order to leave behind the required film of coating or of adhesive. However, this must be well managed. The vapours that solvents can create at ambient temperatures may ignite if the storage and process conditions are not properly controlled. The new guide outlines control systems to manage this risk.

The following excerpt from the guide is a useful "Top Ten Tips" overview

1. Understand the solvent(s) you are using and its (their) properties. This is readily seen from your suppliers' SDS (Safety Data Sheet) which MUST be supplied to you for each product you use.
2. Eliminate any potential sources of ignition, for example, no smoking, safe systems of work, appropriate equipment selection, and minimisation of static electricity build up by using suitable equipment and earthing arrangements. It is a surprising fact that although static electricity is the least obvious source of ignition, it is the most common source of incidents.
3. Ensure good ventilation by using extraction equipment or at the very least by working in an open atmosphere (keep doors and windows open).
4. Work with the solvents at room temperature if possible. Heating should be avoided if possible since this increases the release of solvent vapours. Under any circumstances you must work well below the flash point of the product (information can be found in the suppliers' SDS).
5. Provide information, instruction and training to all persons handling solvents.
6. Report all incidents e.g. leaks, and provide clean-up and disposal facilities. Good reporting should lead to the future elimination of process weaknesses or failures.
7. Provide secondary containment solutions such as bunding or oversized drums. Bunding, a sealed protective area under the solvent storage area, should be large enough to contain the largest possible spillage. A leaking drum can be placed inside an oversized drum to contain the spillage.
8. Take special precautions when loading or unloading vehicles and containers.
9. Develop a short, succinct Emergency Plan and make it available to all persons likely to be present in any potential accident zone.
10. Consider inert storage solutions such as nitrogen blankets.

Previous Best Practice Guides produced by ESIG to support solvent users in the safe use of solvent products are:

1. Measuring solvent vapour concentrations in the work environment
2. Guide to managing solvent exposure
3. Practical guidelines for measuring solvent vapour concentration using chemical indicator tubes

They are all available in PDF version on the ESIG web site www.esig.org and underline the continuing dedication of ESIG and its member companies to assure safety in solvent use.

A Profile of BCF – winner of the 2002 ESIG Solvent Stewardship Award

An important part of ESIG's work is to promote and share best practice and continuous improvement in the use of solvents. Since 1999 ESIG has presented Solvent Stewardship Awards to those companies that have best demonstrated such improvements in health, safety and environmental aspects of their use of solvents.



In 2002, the overall winner was the British Coatings Federation (BCF) because of its broad-based support of the coatings industry in all aspects of solvent management (it is the first time that an association/federation received the award). The BCF is the sole UK trade organisation for the coatings manufacturing industry and provides an array of services to its member companies including dissemination and encouragement of best practices, the establishment of industry standards, provision of training schemes, and the organisation of member interest group meetings.

BCF's Coatings Care continuous improvement programme includes: the Environmental Management Code and Guidance process which enables benchmarking and solvent reduction planning; the

Community Liaison Code and Guidance documents which address neighbourhood and local issues; the BCF's Guidance on Housekeeping and Spills package, which is endorsed by the UK's Health and Safety Executive (HSE), gives advice on prevention and control of spills and also measures to take if accidents should happen.

The BCF also produces a CD-ROM-based SafetyNet program that addresses safety in the workplace, including flammable liquid handling and solvent categorisation and risk assessment.

The BCF has a strong impact on process and product performance through, for example, its Best Practice Guide on Pollution Prevention, which contains industry standards to enable manufacturers to reduce solvent process losses and minimise potential pollution of soil or groundwater. In this area the BCF has also been involved with the HSE's initiative for the inspection of coatings manufacturing plants, which includes a review of solvent handling.

In addition to its direct services to members, the BCF is in constant dialogue with regulators and policy makers on evolving legislative, health and environmental issues. In other areas of communication it organises interactive seminars on aspects of solvents use, handling and disposal, whilst its Coating Care Indicators of Performance package provides, in a practical format, regular information on performance improvement measurements including solvent use 1996-2001.

ESIG would like to congratulate the BCF – its staff, members and contributors – on its achievement in winning this Solvent Stewardship recognition as well to thank the organisation for its clear and dedicated commitment to solvent safety.

"The British Coatings Federation was proud to receive the prestigious honour of being overall winner of the ESIG's 2002 Solvent Stewardship Award. The award recognises the BCF's commitment to encouraging solvent management best practices in the coatings industry, the hard work enshrined in Coatings Care to support companies in their own environmental improvement efforts and protection of members' solvent-using interests."
(Moira McMillan, BCF's Chief Executive)



C A L E N D A R

Autumn 2003:

IPPC review - Commission expects a review after the report on DG Environment communication and Internet consultation

27 October 2003:

Environment Council

End October 2003:

IPP (Integrated Product Policy) – deadline for call for proposals

November 2003:

Proposed directive on VOC content limits in decorative and vehicle refinish coatings – Council adopts common position

24-25 November, Brussels, Conference:

European Commission, DG Enterprise – "The Environmental Performance of EU Industry"

January-June 2004:

Irish Presidency of the EU

March/April 2004:








Release of the outcome of CAFÉ Baseline Scenario

May/June 2004:

Elections of the European Parliament; New Commission

DO's and DON'Ts

for the safe use of solvents

	<p>SAFETY DATA SHEET Do read the label and safety data sheet</p>	<p>NO SMOKING OR IGNITION SOURCE Don't smoke when using solvents and avoid all ignition sources</p>	
	<p>EYE PROTECTION Do wear safety glasses or goggles as indicated</p>	<p>STATIC ELECTRICITY Don't forget to avoid static electricity through proper earthing</p>	
	<p>VENTILATION Do ensure good ventilation and wear respiratory equipment when working in poorly ventilated areas</p>	<p>VAPOUR Don't leave containers open. Avoid inhaling vapours.</p>	
	<p>SKIN PROTECTION Do wear gloves and protective clothing. Avoid contact with any area of skin whenever possible.</p>	<p>NO EATING OR DRINKING Don't eat or drink while using solvents</p>	
<p>DISPOSAL Do dispose of properly in line with local regulation</p>		<p>DISPOSAL Don't pour solvents down the drain or onto soil</p>	

ESIG
European Solvents Industry Group

Advice and help in hydrocarbon and oxygenated solvents



This poster 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, CEPIC, Avenue E. Van Nieuwenhuysse 4, bte 2, B-1160 Brussels. Tel: 32 (0) 2 676 72 64 Fax: 32 (0) 2 676 72 16 e-mail: pdk@cepic.be

QUIZ

1. What should I do if there is a solvent spill?

- a) Nothing at all, because it will evaporate harmlessly
- b) Clean up the spill immediately using available absorbent materials
- c) Drain the solvent from the leaking source into another container
- d) Inform my supervisor/management of the incident

2. If I can't smell solvents in the workplace then it is safe to smoke:

- a) True
- b) False

3. The SDS issued by the solvents supplier is short for:

- a) Solvent Description Sheet
- b) Safety Data Sheet
- c) Smoke Detection Sheet
- d) Supplier Delivery Sheet

4. Before I begin working with solvents or products containing them I must:

- a) Extinguish naked flames and stop smoking
- b) Put on protective eyewear, gloves and clothing
- c) Ensure the workplace is properly ventilated
- d) Avoid static electricity through proper earthing
- e) All of the above

5. How do I dispose of used solvents?

- a) Leave the container outside and unsealed, from where it will safely evaporate
- b) Pour it into the nearby canal or rubbish dump, where it will biodegrade in time
- c) Set fire to it
- d) Contact an authorised waste management expert, who will recycle it or destroy it safely according to the nature of the used material

6. How do I know that the ventilation in the workplace is working properly?

- a) The ventilator indicator light in the workplace is illuminated
- b) The ribbons attached to the ventilator caging are demonstrating positive airflow
- c) There is no smell of solvent
- d) The works canary is still singing in its cage

7. Information that should be made available to all persons working with solvents includes:

- a) An emergency evacuation procedure for all potential incident zones
- b) The Safety Data Sheet for all solvents used in the workplace
- c) Clear safe-working procedures including "no smoking", "ensure ventilators are on" and "wear protective clothing" signs
- d) All of the above

5) D) is correct. There must be no unnecessary release of solvents to the environment, and to set fire to it would be simply dangerous as well as creating pollution. Waste management experts exist throughout the EU and are licensed to deal safely with hazardous waste products. 6) A) and B) are correct. Smell alone is not a safe guide to the presence of solvents, and it is probably quite some time since canaries were used to detect unsafe atmospheric substances! 7) D) is correct. It is a matter of common sense to make all possible information available to employees who are regularly working with solvents, and in some cases it is a legal requirement.

1) B), C) and D) are correct. The solvent may evaporate, but there is no guarantee that it will contribute to low level ozone creation. It is important to stop the source of the leak and to use absorbent materials (which should be made available) and also to inform management of the incident so that procedures to stop it happening again can be put in place. 2) B) is correct. Some solvents have a high odour threshold and may not be detectable even at dangerous concentrations. It is NEVER safe to smoke in the presence of solvents. 3) B) is correct. It is an obligation of solvent suppliers to ensure that each company using its solvents is provided with the Safety Data Sheet, which explains the health and eco-toxicological characteristics of the product and the measures to be taken in the event of exposure or spillage. 4) E) is correct. All these precautions must be taken when working with solvents.



SOLUTIONS IS PRODUCED BY THE
EUROPEAN SOLVENTS INDUSTRY GROUP.

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