TRICHLOROETHYLENE – FACT OR FICTION?

Recently various views on the legislation regarding this solvent have been expressed by a number of organisations. Some of these views are not necessarily accurate leading to confusion for many people, and it is hoped that the following essential details will be helpful to readers of IMFormation.

Trichloroethylene as a vapour degreasing solvent

The following guidance has been agreed by a committee consisting of the Surface Engineering Association, Engineering Employers Federation in association with the Government Environment and Health & Safety bodies. Whilst controls on the use of Trichloroethylene (often known as ‘Trike’ or TCE) have been in place for many years, more stringent controls were introduced from 31 October 2007 and are now in place.

Environmental Legislation

Restrictions on emissions from degreasing tanks have been introduced under the EU Solvent Emissions Directive (SED). In England and Wales, SED is enforced by Local Authority Inspectors and for larger users, by the Environment Agency. In Scotland, SED is enforced by the Scottish Protection Agency (SEPA). SED takes effect at two levels:

- Lower risk solvents require regulation if consumption exceeds 2 tonnes/year
- Higher risk solvents (known as ‘designated risk phrase materials’) requires local authority PPC regulation if consumption exceeds 1 tonne per year.

Higher risk solvents are those designated as:

- A halogenated volatile organic compound (VOC) which is assigned or needs to carry the risk phrase R40
- A substance which is a VOC and which is assigned or needs to carry one or more of the risk phrases R45, R46, R49, R60 or R61 and
- A preparation which, because it contains substances that are VOCs, is assigned or needs to carry one or more of the risk phrases R45, R46, R40, R60 or R61

Consequently, TCE (which has the risk phrase R45) is classed as a higher risk solvent. If SED applies, the user has to substitute higher risk solvents in the ‘shortest possible time’ (see Defra Guidance Note AQ 9(04)).

Other European Health and Safety Legislation affecting TCE

TCE is a priority Substance for consideration under the European Union’s Existing substances Regulation (EC793/93). Following negotiations, a voluntary agreement (“Charter for the safe use of TCE in metal cleaning”) has been signed by all European producers of TCE with the commitment that:

- TCE will not be supplied for metal cleaning/dgreasing after 2010 unless the user has a closed system (defined in terms of specific types of equipment reference to standard EN 12921 part4 “Safety of machines using halogenated solvents”);
- User companies must give a written undertaking (by 31 Dec 2010) that TCE will be used only and exclusively in closed systems as defined above;
- The full co-operation of EU distributors of TCE in the agreement will be secured; and
Signatures will fully document the commitments made by suppliers, distributors and users, monitor the progress of the voluntary agreement and report annually to the Commission and Member States.

**What is the practical effect of the above?**

1. If a degreaser consumes more than 1 tonne of solvent per year it must have a PPC permit from the relevant authority or in Scotland from SEPA by 31 October 2007 and will normally be expected to have replaced any TCE used by that date. In practice, it is expected that a company will need enclosed degreasing machines in order to comply, but it is nevertheless envisaged that a few open-topped machines may be compliant, depending on their size, utilisation and the nature of the degreasing work.

2. The European supplier’s Charter means that, from 1 January 2011 all existing open-topped vapour degreasing machines using TCE will need to be totally enclosed, even where the solvent consumption is below 1 tonne per year, and not caught by the PPC legislation. Engineering companies using open-topped degreasers are looking for alternative to TCE. These should preferably include other lower risk organic solvents or aqueous degreasing methods.

Thanks are expressed to SEA for permission to circulate the essential details from the articles published in Watchword.

**Health, Safety and Environment**

**Nickel Guidance Symposium receives congratulations from across the ‘pond’**

Congratulations received from Dr Adriana Oller of NiPERA laboratories in North Carolina who quotes ‘I think you should be congratulated since the current urinary results demonstrates quite significant reductions in overall exposures. From NiPERA’s point of view we encourage you to continue this program of regular sampling as a way of assuring controlled exposures and detecting any possible control problems if they were to arise’. Well done to John Healy and colleagues.

**Company News and Products**

**Scott Bader**

A new anti-corrosion primer with heat resistant properties has been introduced by Scott-Bader. Called Texicryl 13-600, it is a styrene copolymer, phenol ethoylate free, and possibly the first waterbased primer of this type to achieve 500 hour salt spray resistance on a 50 micron single dry film thickness. Texicryl is also resistant to discolouring in high humidity conditions, and can withstand higher temperatures than some other chemistries. It has high blister resistance to fuels, brake fluids and coolants and is particularly suited for automotive applications.

Further information on request from Richard Hirst, Tel: 01933 666757, Fax: 01933 666525 or email: Richard_Hirst@scottbader.com

**Companies Beware ??? Latest Scam**

Thanks to Andrew Swain of Anopol we can draw your attention to a possible scam or at least to unethical selling technique, usually a phone call to the maintenance engineer – ‘I am
ringing to thank you for taking part in our survey and to show our appreciation we would like to send you a drum of our new environmentally friendly degreasing agent’ or some other similar words.
The person contacted will most likely assume that someone else in the company had been contacted. When requested for an order number, asks why, and is told that they have had materials refused because of no order number or quoted as verbal.
Material arrives, and much later an invoice but for a much larger quantity than that delivered and being charged for. The name of the company has not been tracked other than it appears that the company name contains the word ‘chemical – Is this a Scam?
The above is only a abstract of the document produced by Andrew who would be interested in hearing from others who may have had similar experience Tel: 0121 632 6888

**Midland Deburr & Finish Ltd**
Provides a cost-effective solution to companies wishing to sub-contract ‘dirty processes – deburring, mechanical finishing, degreasing and cleaning using up-to-date equipment. ISO 9001 compliant and is currently working towards ASEN9100 and Nadcap accreditation.
Further information please contact Chris Arrowsmith on Tel: 01384 891198

**Tecan Metal Finishing**
Three members of staff from the Weymouth-based Tecan have achieved high praise from the IMF in achieving distinction grade in the examination following study of the Foundation Module in Metal Finishing and Surface Coating.
Seamus Bourke, Division Manager is proud of the of James Hope, John-Paul Latham and Joe Pheby, for their achievement and proposes to enrol them on the ‘Technician Course’ with the aim of achieving the professional grade of TechIMF’

**REACH Tin Metal Consortium**
Membership of this consortium continues to grow as companies are working together in order to minimise the costs and resource requirements of dealing with the complex requirements of REACH, and the number of members has been increasing since the group was formed in October. Membership is open to any company.
ITRI is acting as the Secretariat of the consortium, and runs the technical programme, managing the administration of the group.
Companies who are interested in joining the REACH consortium for tin metal or discussing the activity of inorganic tin chemical compounds, should contact Kay Nimmo – Tel: ++44 (0) 1727 871 312 or by email at: kay.nimmo@itri.co.uk

**IMF News**

**REACH ‘Club’**
Delegates who attended the REACH symposium on 9 October 2007 will remember the discussion on the possibility of IMF setting up a ‘Club’ similar to the one set up on IPPC by the SEA some time ago. As a result, an initial meeting was held at Exeter House in mid December which attracted a good cross section of members and a general consensus of opinion that it would very helpful for members/member companies in attempting to wade through the vast amount of paper work available.
A second meeting was held on 7 January and it was agreed by all that the meetings were
going to be of great benefit, as the impacts of the legislation were different from end users and supply house perspective and each will learn from each other. Many points were raised during the meeting which it is hoped can be addressed for discussion at the next meeting. There is no cost for attendance at what will be monthly meetings at Exeter House (even the supply of a buffet lunch) interested? – Next meeting Thursday 7 February. Contact Ken Hoare at Exeter House Tel: 0121 622 7387 or email the IMF on: Exeterhouse@instituteofmetalfinishing.org

IMF News
Due to unforeseen circumstances the 12 February Symposium & Exhibition on Surface Preparation and Pre-treatment has been cancelled. It is proposed to run this event later in the year. Watch this space.

20 March at Old Silhilians Sport & Social Club, Knowle
Joint meeting with OCCA. Talk by Paul Griffiths (Schloetter Co. Ltd) entitled ‘Unusual applications for paint’ commencing at 6.30 pm. All welcome.

Next Organic Finishing Group/Midland
Branch event
13 May 2008
‘Application and Curing’
One-day symposium and tabletop exhibition
Further details and brochure will be available shortly from Exeter House, Tel: 0121 622 7387

Southern Branch
Wednesday 2 April 2008
Health and Nickel – All you need to know
Mini Evening Symposium, Tour and Exhibition
To be held at
ITT Canon, Basingstoke
Provisional details: Exhibition and Tour 6.00–7.00 pm
Presentations: 7.00 pm followed by buffet
Provisional Cost: Delegate £12.00, Exhibitor £25.00
Further details from Clive Arnold at BAE Systems
Tel: 02392 226128, Fax: 02392 or 02392 226001 or by e-mail: clivearnold@baesystems.com

New Members

Students
Brooks, Iain - University of Toronto
Khedkar, Brijesh - Newcastle University
Li, Yanhong - University of Portsmouth

Affiliates
Brain, Ani Zhecheva - Sifco Applied
Cree, Alistair - Britannia Royal Naval Coll.
Kenny, William - BMT, Port Glasgow
Pollett, Bruno - Alkene Chemical Solution
Sahrhage, Holger - Coventya GmbH
Card, Andrew - Grimshaw, Neil Hobbs, Martin Lockett, Sarah Nicholas, Anthony O'Shea, Peter (All at Seagate Technology, Northern Ireland)

New Sustaining Member Companies

Apple Shopfronts Ltd
29 Sussex Street
Sheffield S4 7YY
Tel: 01142 014144,
Email: sales@appleshopfronts.com
A complete architectural shopfront service is provided with in-house design and manufacturing facilities. We have in-house powder coating facility as well as providing anodised finishes.

Midland Deburr and Finish Ltd
Unit 5 Lye Valley Industrial Estate
Bromley Street, Lye
West Midlands DY9 8HX
Tel: 01384 891198, Fax: 01384 891911
Email: midlanddeburrandfinish.co.uk
Midland Deburr and Finish specialise in subcontract solvent degreasing. Vibro deburring and barrelling processes are also available to remove sharp edges from ferrous and non-ferrous components.

Examination Results

Automotive Surface Finishing BMW – October 2007
Bower, Christopher * Bushby, Ian
Elmey, Martin * Green, Darren #
Harris, Lee Oakman, Christopher
Parsons, Lee Rapley, Lee *
Rushton, Andrew # Stickley, Andrew *
* pass with merit # pass with distinction

Out and About

11 - 12 March - Waterbourne and High Solids
Coatings Conference. Brussels
Details: www.pra.org.uk/conferences

11 – 14 March - Paint Expo ~ International Trade
Fair for Industrial Coating Technology, Karlsruhe
Germany. Details: www.paintexpo.de


21 – 25 April. MACH 2008. NEC, Birmingham
Details: Tel: 020 7298 6400

22 – 24 April. SUBCON 2008. NEC, Birmingham
Details: www.subconshow.co.uk

NAMTEC (National Metals Technology Centre)
Short courses for 2008
06 February Metallurgy for Non Metallurgists
11 March Introduction to Heat Treatment
18 March Heat Treatment for HT Professionals
22 April Titanium Metallurgy
28 April MSc Steel Products and Applications
Details: Beartriz Jackson, Tel: 01709 723 591