

To all interested parties

HSE consultation on a European Commission proposal to restrict the sale and use of paint strippers containing dichloromethane (DCM)

Introduction

1. The European Commission has made a proposal for a Decision of the European Parliament and of the Council to amend the Marketing and Use Directive (76/769/EEC) to restrict the sale and use of paint strippers containing dichloromethane (DCM).
2. Paint strippers containing DCM are the most commonly used chemical paint strippers in the UK and a number of other EU countries. However, concerns have been expressed by some Member States about the number of fatal and non-fatal accidents involving the use and misuse of these substances.
3. Views of Member States are polarised on this issue, with no consensus. Because of doubts over the safety of alternatives, HSE believes that there is no evidence that the restriction on the use of DCM-based paint strippers would lead to a reduction in the fatality and injury rate.

European Commission proposal

4. The European Commission is proposing to prohibit the supply of DCM-based paint strippers to the general public and to professional users. Member States would, as a compromise, be allowed on an individual basis to permit the continued use of these paint strippers by professionals, subject to them obtaining a licence following training in their safe use. The use of DCM-based paint strippers would be permitted in industrial installations provided that certain safety conditions were met (e.g. effective exhaust ventilation or respiratory protective equipment, enclosed strip tanks and appropriate gloves). The full text of the Commission's proposal is at Annex 1.

EU negotiations

5. Discussions on the proposal between Member States commenced in July 2008 in the forum of the European Council Working Group on Technical Harmonisation (Dangerous Substances). If agreed, the proposal is expected to be adopted in the autumn. HSE, as the lead Government Department for this proposal, is negotiating on behalf on the UK.

6. In 2007 Risk And Policy Analysts Ltd (RPA) published a report, commissioned by the European Commission, that set out the arguments in favour of a restriction on DCM-based paint strippers. This can be accessed at: http://ec.europa.eu/enterprise/chemicals/legislation/markrestr/j549_dcm_final_report.pdf

The related Annexes can be accessed at:

http://ec.europa.eu/enterprise/chemicals/legislation/markrestr/j549_dcm_annex.pdf

7. HM Government's view is that the proposed restriction is disproportionate in the light of the relatively small number of fatalities ascribed to DCM use. The RPA Report indicated that there have been 18 fatalities across the whole of the EU since 1989, none of which were to consumer users. In the UK, during the same period, there was 1 professional fatality and 4 industrial fatalities.

8. HSE welcomes the proposed tightening of workplace standards for the use of DCM-based paint strippers in industrial premises as they would reinforce existing general requirements concerning solvent emissions and the control of substances hazardous to health. The proposed measures would also complement existing good-practice guidance for industry.

9. HSE has prepared a preliminary Impact Assessment of the potential costs and benefits of the proposed restrictions (Annex 2). This concludes that the proposed ban on the sale of DCM-based paint strippers to professional and consumer users is disproportionate to the risks to these users. Preliminary estimates of the proposed ban suggest the cost to the UK of the proposed ban on consumer and professional use of DCM-based paint strippers would be at least approximately £4.6m to £20m per annum against a benefit saving of £80,000 per annum.

10. The Preliminary Impact Assessment does not estimate costs of the proposal for the industrial use of DCM-based paint strippers, but as the proposed measures reflect the baseline, costs are not expected to be significant

11. The HSE is aware that a majority of Member States supports the Commission's proposals for a restriction on consumer use and that the UK is in a minority position. There is limited support among Member States for a introducing a licensing scheme, as this is seen as costly and bureaucratic. It is therefore likely that the proposals will be driven through, with the potential for some compromise amendments.

Effect on UK legislation

12. Because the Marketing and Use Directive (76/769/EEC) is due to be repealed on 1 June 2009 under the terms of EC Regulation 1907/2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), the proposed Decision would, if agreed by the Council and by the Parliament, become a directly acting regulation as part of Annex XVII of REACH. EU Member States would not be required to implement it into

domestic legislation. If the Decision is adopted, as expected, in late autumn 2008, the restriction would take legal force from 1 June 2009 at the same time as the rest of Annex XVII of REACH.

Invitation to comment

13. HSE would welcome your views on any of the points raised in this letter, and in particular on the likely costs to UK consumers and professional users arising out of the European Commission's proposals. Please email or send your comments by 26 September 2008 to:

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COMMISSION OF THE EUROPEAN COMMUNITIES

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Proposal for a

DECISION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

amending Council Directive 76/769/EEC as regards restrictions on the marketing and use of certain dangerous substances and preparations (Dichloromethane)

(amendment of Council Directive 76/769/EEC)

(presented by the Commission)

{SEC(2008) 192}
{SEC(2008) 193}

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE PROPOSAL

Council Directive 76/769/EEC of 27 July 1976 on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations establishes a framework for harmonised rules throughout the European Union concerning the placing on the market and use of dangerous substances and preparations.

Directive 76/769/EEC is used to manage the risks to human health and the environment from dangerous substances. Dangerous substances and preparations listed in Annex I to Directive 76/769/EEC may only be placed on the market and used under specific conditions.

It is proposed to manage the risks on Dichloromethane (DCM) by listing this substance in Annex I of Directive 76/769/EEC.

1.1. Dichloromethane, its chemical properties and its risks to human health

Dichloromethane (DCM), CAS number 75-09-2 and EINECS number 200-838-9, is a colourless, halogenated aliphatic hydrocarbon compound with a penetrating ether-like or mild sweet odour. It is mainly used in the production of pharmaceuticals, solvent and auxiliary applications, paint strippers manufacture and adhesives.

DCM is not included in the priority lists under Regulation (EEC) No 793/93 of 23 March 1993 on the evaluation and control of the risks of existing substances. However risks from DCM in paint strippers have been assessed in several studies¹ which concluded that risk reduction measures are required throughout the EU. Paint strippers are used to remove coats of paints, especially blistered or cracked coats on various substrates, particularly metal and wood and are applied by industrial and professional users, as well as consumers.

The main risks from DCM to human health are related to its vapours and its toxic effects to the central nervous system. These effects associated with bad working/operational conditions (e.g. inadequate ventilation, inappropriate personal protective equipment) have contributed to a number of registered accidents and fatalities during the last 18 years in the EU.

According to the Scientific Committee on Health and Environmental Risks² (SCHER), exposure to DCM released from paint strippers is of concern for human health especially for the more susceptible populations such as children due to a potential for higher exposure. The

¹ Methylene chloride: Advantages and drawbacks of possible market restrictions in the EU. TNO-STB study finalised in November 1999. http://ec.europa.eu/enterprise/chemicals/studies_en.htm ; Effectiveness of vapour retardants in reducing risks to human health from paint strippers containing dichloromethane by ETVAREAD expert group. Final report published in April 2004 http://ec.europa.eu/enterprise/chemicals/studies_en.htm; Impact assessment of potential restrictions on the marketing and use of dichloromethane in paint stripper. RPA study finalised in April 2007. http://ec.europa.eu/enterprise/chemicals/studies_en.htm

² Scientific Committee on Health and Environmental Risks opinion on “Effectiveness of vapour retardants in reducing risks to human health from pain stripper containing dichloromethane ETVAREAD final report April 2004. Adopted by SCHER during the 4th plenary session of 18 March 2005. http://ec.europa.eu/health/ph_risk/committees/04_scher/scher_opinions_en.htm

high concentrations of DCM measured during paint removing activity are unacceptable for the risks to human health.

Various alternatives to DCM-based paint strippers are already available on the market: physical/mechanical stripping, pyrolytic/thermal stripping, and chemical stripping involving other chemicals than DCM. The chemical alternative paint strippers are the most widely used, however they also have their own hazard profiles and, depending on their concentration in the formulation, they could pose other risks to the user.

During the last four years discussions have taken place between the Commission, Member States and other stakeholders. Despite strongly divergent opinions on the risks associated with DCM and on the safety of alternatives, an agreement has been reached on the need for marketing and use restrictions at Community level under Council Directive 76/769/EEC to limit the risks from DCM.

1.2. Intended effects of EU legislation

Due to the fact that there is a need for limiting the risks during industrial, professional and consumer uses of DCM-based paint strippers, certain restrictions on placing on the market and use should be applied. The present Decision would amend Annex I to Directive 76/769/EEC by adding Dichloromethane. This will ensure harmonised rules applied at Community wide level.

The most significant proportion of fatalities associated with the use of DCM-based paint strippers in Europe over the last 18 years were linked to industrial and professional uses under conditions of inadequate ventilation and with inappropriate application of personal protective equipment.

For the activities conducted in industrial installations some mandatory requirements should be applied such as: the use of appropriate protective gloves, the installation of local ventilation or independent air supply respiratory protective equipment, and modification of the strip tanks, to ensure reduction of exposure of workers.

Professional uses should be banned in general, but Member States could opt to allow further use on their territories by specifically licensed professionals for those activities where they believe that the replacement of DCM is particularly difficult or inappropriate. Licenses should be subject to specific training requirements.

A total ban of the placing on the market of paint strippers containing DCM for consumer uses should be applied as the only effective measure to eliminate the risks.

2. RESULTS OF CONSULTATIONS WITH THE INTERESTED PARTIES AND IMPACT ASSESSMENT

2.1. Consultations

In 2004 the Commission started discussions at the meetings of the Commission Working Group responsible for the implementation of Directive 76/769/EEC (hereinafter referred to as the “Limitations Working Group”). In November 2005 the Commission organised a forum on “paint stripping agents” with the involvement of the manufacturers of DCM-based paint strippers and of DCM alternatives. Due to the remaining divergent opinions of industry and authorities, the Commission contracted out another study to collect more information in order

to assess the impact of potential restrictions on the marketing and use of DCM-based paint strippers at Community wide level.

The recommendations of this study³ were discussed during the Limitations Working Group meeting on 3 July 2007. Representatives from companies in favour of continued use of DCM and from companies in favour of the alternatives, the European Consumers Organisation (BEUC), the European Mine, Chemical and Energy workers federation (EMCEF) and the European Trade Union Confederation (ETUC) attended this meeting or were consulted.

2.2. Impact Assessment

A detailed impact assessment has been prepared and was sent to the Impact assessment Board on 5 October 2007 which expressed its opinion on 9 November 2007. All the comments of the Board (IA quality checklist and final opinion) have been included in the final impact assessment version⁴

A number of options ranging from the 'No-Action' option, over voluntary actions by industry to legislative restrictions of various degrees have been evaluated and the most effective and efficient options for the three use categories are the following:

– *For industrial uses*

DCM-based paint strippers activities should be conducted only in industrial installations with mandatory requirements concerning the protection of personnel, such as appropriate gloves, exhaust ventilation or air respiratory equipment and engineering controls for strip tanks. These measures will further support the enforceability of the legislation for workers protection by effectively reducing exposure to DCM and thus the number of accidents and fatalities.

– *For professional uses*

The use of DCM-paint strippers by professionals in non-industrial settings should be banned in general, but Member States could opt to allow further use on their territories by specifically licensed professionals for those activities where they believe that the replacement of DCM is particularly difficult or inappropriate. This measure will give Member States and interested companies the full responsibility and the administrative burden of setting up and controlling a training and licensing system with appropriate measures. The number of accidents and fatalities will be reduced.

– *For consumer uses*

A ban of placing on the market of DCM-based paint strippers for consumer use is the only effective measure to eliminate the risk to consumers. It would be impossible to comprehensively monitor consumer behaviour during Do-It-Yourself applications, or to ensure adequate training and use of the necessary protective equipment.

³ Impact assessment of potential restrictions on the marketing and use of dichloromethane in paint stripper. RPA study finalised in April 2007. http://ec.europa.eu/enterprise/chemicals/studies_en.htm

⁴ Commission Staff working document: « Impact Assessment Report » available at: http://ec.europa.eu/chemicals/studies_en.htm

3. LEGAL ELEMENTS OF THE PROPOSAL

3.1. Legal basis

The legal basis of the Proposal is Article 95 of the Treaty.

The present Decision would provide rules for the placing on the market and use of DCM-based paint strippers for the three categories of use (industrial, professional and consumer).

It would also establish uniform rules for the circulation of DCM-based paint strippers and it would avoid obstacles to trade because of differences in legislation between the Member States. This proposed amendment to Directive 76/769/EEC would improve the conditions for the functioning of the Internal Market and it would guarantee a high level of protection of human health.

3.2. Subsidiarity and proportionality principles

Council Directive 76/769/EEC relating to restrictions on the placing on the market and use of certain dangerous substances and preparations, seeks to establish harmonised rules throughout the EU and to avoid divergent national legislation, which is liable to cause barriers to intra-community trade. This cannot be achieved by leaving the responsibility to act solely to the Member States.

The measures proposed in the present Decision are also proportionate considering the overall costs and benefits for all use categories in relation with the final aim of improving the protection of human health.

3.3. Choice of instruments

The Commission has chosen Council Directive 76/769/EEC as the best instrument to preserve the Internal Market and at the same time ensure a high level of protection of human health and the environment. It is therefore in conformity with Article 95(3) of the Treaty.

Directive 76/769/EEC will be repealed on 1 June 2009 by Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC. The amendment to be made to Annex I of Directive 76/769/EEC by this Decision will be applied after 1 June 2009 and will be introduced in Annex XVII of Regulation (EC) No 1907/2006.

It is more appropriate to amend the Annex I of Directive 76/769/EEC using a Decision rather than a Directive as transposition of the proposed restrictions into national law would be accomplished only a few months before Directive 76/769/EEC is repealed or even only afterwards. Transposition will therefore not serve any useful purpose. In this situation a Decision is a more appropriate legal act than a Directive.

4. BUDGETARY IMPLICATION

There are no budgetary implications arising from the present Decision.

Proposal for a

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amending Council Directive 76/769/EEC as regards restrictions on the marketing and use of certain dangerous substances and preparations (Dichloromethane)

(amendment of Council Directive 76/769/EEC)

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 95 thereof,

Having regard to the proposal from the Commission¹,

Having regard to the opinion of the European Economic and Social Committee²,

Acting in accordance with the procedure laid down in Article 251 of the Treaty³,

Whereas:

- (1) The risks posed to human health by Dichloromethane (DCM) in paint strippers have been assessed in several studies⁴ which concluded that risk reduction measures are required throughout the EU to reduce the risks posed to human health during the application of DCM at industrial, professional and consumer level. The results of those studies were evaluated by the Commission's Scientific Committee on Toxicity, Ecotoxicity and the Environment (CSTEE - later named SCHER) which confirmed that the exposure to DCM released from paint strippers is of concern for human health⁵.

¹ OJ C , , p. .

² OJ C , , p. .

³ OJ C , , p. .

⁴ Methylene chloride: Advantages and drawbacks of possible market restrictions in the EU. TNO-STB study finalised in November 1999. http://ec.europa.eu/enterprise/chemicals/studies_en.htm; Effectiveness of vapour retardants in reducing risks to human health from paint strippers containing dichloromethane by ETVAREAD expert group. Final report published in April 2004 http://ec.europa.eu/enterprise/chemicals/studies_en.htm; Impact assessment of potential restrictions on the marketing and use of dichloromethane in paint stripper. RPA study finalised in April 2007. http://ec.europa.eu/enterprise/chemicals/studies_en.htm

⁵ Scientific Committee on Health and Environmental Risks opinion on Effectiveness of vapour retardants in reducing risks to human health from paint strippers containing dichloromethane. ETVAREAD Final Report 01 April 2004. Adopted by the SCHER during the 4th plenary session of 18 March 2005. http://ec.europa.eu/health/ph_risk/committees/04_scher/scher_opinions_en.htm

- (2) In order to achieve a high level of health protection for all use categories (industrial professional and consumer) the marketing and use of DCM-based paint strippers should be restricted.
- (3) DCM-based paint strippers are used by consumers at home to remove paints, varnishes and lacquers both indoors and outdoors. The safe use of DCM by consumers cannot be ensured by training or monitoring. Therefore, the only effective and proportionate measure to eliminate the risks for consumers is a ban on the marketing and use of DCM-based paint strippers.
- (4) In order to ensure a proportionate enforceability of the phase-out along the supply chain of paint strippers containing DCM, different dates to prohibit the first placing on the market and the final supply to the general public and professionals should be fixed.
- (5) As consumers, may have access to DCM-based paint stripper despite the ban through the distribution chain intended for professional and industrial users, a warning phrase should be included on the product.
- (6) The fatalities registered in Europe over the last 18 years for industrial and professional uses are mainly attributed to inadequate ventilation, the inappropriate personal protective equipment, the use of inadequate tanks and the long-term exposure to DCM. Therefore restrictions should be imposed to control and reduce the risks involved in professional and industrial uses.
- (7) Professionals are generally covered by the provisions of the legislation for workers protection. However, many professional activities are often conducted in customers premises which often do not have all the appropriate measures to manage, control and reduce the risks to health. Moreover, self-employed workers are not covered by the provisions of the worker protection legislation and would require adequate training before conducting paint stripping activities based on DCM.
- (8) The placing on the market and use of DCM-paint strippers by professionals should therefore be banned in order to protect their health and to reduce the number of fatalities and non-fatal accidents. Nevertheless, when the replacement of DCM is deemed to be particularly difficult or inappropriate, Member States should be able to allow further use of DCM by specially licensed professionals. Member States would be responsible for granting and monitoring such licences, which should be based on compulsory training with specific requirements.
- (9) The number of fatalities and non-fatal accidents registered during industrial activities is an indication of inadequate enforcement of the workplace legislation. The exposure to DCM remains high and further risk reduction measures should apply to workers in industrial installations. Preventive measures such as good ventilation of the workplace, appropriate personal protective equipment and additional modification of tanks should be adopted.

- (10) Personal protective equipment should comply with the requirements of Council Directive 89/686/EEC of 21 December 1989 on the approximation of the laws of the Member States⁶.
- (11) Directive 76/769/EEC should therefore be amended accordingly.
- (12) This Decision is without prejudice to the Community legislation laying down minimum requirements for the protection of workers, such as Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work⁷ and individual Directives based thereon, in particular Directive 2004/37/EC of the European Parliament and of the Council of 29 April 2004 on the protection of workers from the risks related to exposure to carcinogens or mutagens at work (Sixth individual Directive within the meaning of Article 16(1) of Council Directive 89/391/EEC) (codified version)⁸ and Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC)⁹,

HAVE ADOPTED THIS DECISION:

Article 1

Annex I to Directive 76/769/EEC is amended in accordance with the Annex to this Decision.

Article 2

This Decision shall enter into force on the third day following that of its publication in the *Official Journal of the European Union*.

Article 3

This Decision is addressed to the Member States.

Done at Brussels,

For the European Parliament
The President

For the Council
The President

⁶ OJ L 399, 30.12.1989, p. 18.

⁷ OJ L 183, 29.6.1989, p. 1. Directive as amended by Regulation (EC) No 1882/2003 of the European Parliament and of the Council (OJ L 284, 31.10.2003, p. 1).

⁸ OJ L 158, 30.4.2004, p. 50.

⁹ OJ L 131, 5.5.1998, p. 11.

ANNEX

In Annex I to Directive 76/769/EEC, the following point xx is added:

<p>“(xx)</p> <p>Dichloromethane</p> <p>CAS N°: 75-09-2</p> <p>EINECS N°: 200-838-9</p>	<p>(1) Paint strippers containing dichloromethane in a concentration equal to or greater than 0.1% by mass shall not be placed on the market for the first time after [<i>12 months after the entry into force of the Decision</i>] for supply to the general public or to professionals, and shall not be supplied to them after [<i>24 months after the entry into force of the Decision</i>].</p> <p>(2) By way of derogation to paragraph (1), Member States may authorise the supply of paint strippers containing dichloromethane to licensed professionals.</p> <p>(3) The licence referred to in paragraph (2) shall be granted to professionals trained in the safe use of paint strippers containing dichloromethane. The training shall cover:</p> <ul style="list-style-type: none">(a) awareness, evaluation and management of risks to health,(b) use of adequate ventilation,(c) use of appropriate personal protective equipment¹. <p>(4) Paint strippers containing dichloromethane in concentrations equal to or greater than 0.1% by mass may be used in industrial installations only if the following conditions are met:</p> <ul style="list-style-type: none">(a) effective exhaust ventilation or respiratory protective
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¹ Such personal protective equipment shall comply with the requirements of Council Directive 89/686/EEC.

	<p>equipment with an independent air supply²,</p> <p>(b) enclosed strip tanks covered when not in use,</p> <p>(c) appropriate protective gloves for operators.³</p> <p>(5) Without prejudice to other Community legislation concerning the classification, packaging and labelling of dangerous substances and preparations, paint strippers containing more than 0.1% by mass of dichloromethane shall be legibly and indelibly marked by [<i>24 months after the entry into force of the Decision</i>] as follows: “Reserved for industrial and professional uses”.”</p>
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² Such respiratory protective equipment shall comply with the requirements of Council Directive 89/686/EEC.

³ Such protective gloves shall comply with the requirements of Council Directive 89/686/EEC.

PRELIMINARY IMPACT ASSESSMENT

Concerning the proposal for a decision of the European Parliament and of the Council amending Council Directive 76/769/EEC as regards restrictions on the marketing and use of certain dangerous substances and preparations (Dichloromethane).

This preliminary exercise is based on a partial estimate of some of the costs that the above proposal is likely introduce.

COST IN UK OF A TOTAL BAN ON CONSUMER AND PROFESSIONAL USES:

Cost to virgin DCM Producers

There is likely to be a decrease in sales volume of 'virgin' dichloromethane (DCM) as less will be used to formulate paint strippers because there will no longer be consumer users.

There are an estimated 2,600 tonnes of DCM manufactured, and 3,228 tonnes of DCM sold, annually in the UK market affected by the proposals, of which one third is estimated to be currently used by each user group. The estimated cost of each tonne of virgin DCM is £770 to £1000.

Value of the UK Market of Virgin DCM (£'000s)

	Lower Bound		Upper Bound	
	Manufactured	Sales	Manufactured	Sales
Consumer ¹	667	829	867	1076
Professional ²	667	829	867	1076
Industrial ³	667	829	867	1076
Total	2000	2486	2600	3228

The report⁴ produced by Risk & Policy Analysis Ltd (RPA) focuses on manufacturers and considers the cost of virgin DCM to be £770 per tonne.

There will be reduced sales of DCM under a restriction regime. Most of these losses to virgin DCM producers will be offset by increased sales of alternatives.

Costs to recyclers / of recycling in the UK:

A substantial proportion of the DCM used in paint stripper has been recycled from uses in other industries (chiefly the pharmaceutical and food industry).

These other industries may:

- lose revenue from the sale of used DCM to recyclers.

¹ e.g. DCM-based paint stripper being used for DIY activities.

² e.g. DCM-based paint stripper being used in a permanent, stationary technical installation (for instance, metal stripping, furniture stripping, aircraft stripping).

³ e.g. DCM-based paint stripper being used for the removal of pain from exterior or interior walls of buildings, removal of graffiti, removal of paint from doors and window frames by a tradesman (not a consumer), usually taking place either outdoors or at/in the premises of a client.

⁴ *Impact Assessment of Potential Restrictions on the Marketing and Use of Dichloromethane in Paint Strippers*. Risk & Policy Analysis Ltd – April 2007

- incur additional costs for disposal of their used DCM if there was a reduced market for recycled DCM. The cost of safe disposal of DCM is estimated at £700 - £1500 per tonne

Recyclers may lose sales of recycled DCM to paint stripper formulators or may find other uses for recycled DCM.

Costs to Formulators

There will be a decrease in sales volume of the finished product [i.e. formulated DCM-based paint stripper (DCMBPS)], because there will no longer be consumer or professional users. Most the losses associated with this will be offset by increased sales of alternatives

Formulators may decide to cease production of DCMBPS completely and instead adapt processes to manufacture alternative non-DCM based paint strippers (NDCMBPS). There will be costs in adapting plant and equipment and R&D costs in developing the new product formulation and marketing costs, estimated as follows.

Estimated Costs of adapting plant and equipment to Production of Alternatives = £50k to £1.9m

Estimated Cost of R&D associated with alternatives = £850k

Estimated Cost of Raw Materials = £8m

Formulators may decide to continue with production of DCMBPS for industrial and professional use but set up a second production line to produce NDCMBPS for consumer use. There may be additional costs of having two production lines, adapting plant and equipment, R&D costs and marketing costs for new non-DCM product formulation.

Existing formulators of NDCMBPS may benefit from increased market share if consumers switch to their product.

Costs to retailers/wholesalers of DCM-based paint strippers:

These costs will arise because of a decrease in sales volume as less formulated DCM-based paint stripper will be bought since there will no longer be consumer users. Consumers may choose to purchase alternative NDCMBPS or other methods for stripping, e.g. heat gun or sander.

Net sales of paint stripping products may be unaffected as users switch to alternative paint stripping chemicals or alternative paint stripping methods.

Costs to consumer and professional users:

These costs will arise because of the possible increased cost of purchasing a more expensive alternative NDCMBPS or a heat gun / sander.

There are assumed to be 8000 tonnes per annum of DCM based paint stripper (finished product) in the UK market. 75% is assumed to be replaced by alternative chemical paint strippers under a total ban (6000 tonnes). 50% is assumed to be replaced by alternative chemical paint strippers under a consumer and professional

ban (4000 tonnes). 1 kilo of DCM based paint stripper costs £1.15. 1 kilo of alternative formulations cost £2.30 to £6.15. This implies a £1.15 to £5.00 increase in cost per kilo from the switch from DCM to alternatives.

Total increased cost of alternatives under a Consumer and Professional Ban = £4.6m to £20m per year

The cost of personal protective equipment to protect against exposure to NDCMBPS may be cheaper.

The cost of the increased time necessary to strip the paint by an alternative method that is slower [if the professional is reluctant to pass on these cost to client through the price for the job];

The cost of the increased time necessary to strip the paint because the alternative method may require a second application of chemical stripper [if the professional is reluctant to pass on these cost to client through the price for the job];

As other methods are often slower to work or may damage the substrate consumers may instead opt to use the services of a licensed professional DCM paint stripper or send the item (e.g. a door or a piece of furniture) to be stripped using DCMBPS at industrial premises. The cost of procuring professional services is likely to be higher than DIY.

Alternatively, consumers may instead opt to send items to be stripped at industrial premises in dipping tanks using DCMBPS rather than having a professional do the work onsite. Therefore, professionals may lose work [and clients may face increased costs by not being able to use the services of a professional paint stripper – see below].

Cost to the contracting client

As other methods are often slower to work or may damage the substrate clients may instead opt to send items to be stripped at industrial premises in dipping tanks using DCMBPS rather than having a professional do the work onsite. The client would face increased costs by having to remove the item to be stripped (e.g. a door), the transport costs of getting it to and from the industrial premises, increased time costs etc. This 'industrial' work may be more expensive than having the work done by a professional onsite.

The client may have to pay more for a professional to do the work if an alternative NDCMBPS is slower acting.

The client may have to pay more for a professional to do the work if an alternative NDCMBPS requires several applications.

If substitutes are flammable there may be increased costs through restrictions on other trades working in the same area at the same time, therefore contracts may take longer to complete.

We estimate that non-DCM based paint strippers may take 2 to 3 times longer to be as effective as DCM.

Total extra cost = Hourly rate of professional × Total Extra Hours Spent
= £20 per hour × Total extra hours spent

The UK DCM-based paint stripper Formulators Group estimates that £185 million is lost to consumers and professionals as a result of poorer performance of alternatives under a ban (RPA Report). This includes the extra cost of alternatives and the cost of the extra time taken by alternatives. After these costs have been subtracted, this gives an estimate of the disruption caused to industrial practices from using potentially flammable non-DCM paint strippers.

Cost of participating in a licensing regime

Cost to Professionals

There will be costs to professional of complying with the proposed licensing regime. The hourly rate of a professional paint stripper is assumed to be £20 per hour or £150 per day.

1. Identifying and selecting an appropriate approved training provider.

10 mins

2. Admin time taken filling in registration forms

10 mins

3. Admin time taken paying invoices for training / obtaining the licence.

10 mins

4. Admin time taken making travel arrangements to visit off-site training venue (or if training provided to a large business onsite, the cost of providing a training suite).

10 mins

5. Admin time in having to read any pre-course material.

20 mins

Total 1 hour × £20 = £20

6. Travel expenses to and from the training venue (petrol / train fares / bus fares / possibly accommodation and time etc)

Perhaps have to travel on average 40 miles to training venue. Assumption of 40p per mile.

40 miles × 40p = £16

7. Cost of lost time / lost production for having to attend the training course.

1 day initially at a cost of £150

0.5 days every year thereafter at a cost of £75

8. Administrative costs in ensuring that staff's licences were up to date.

Once per year - 20 minutes

1/3hrs × £20 = £7

Cost to individual professional (First year)

£193

Thereafter

£118

There are 147,000⁵ professional painters and decorators in UK. The estimated number of professionals we expect will go through the licensing regime is 15% of the total.

Total Cost (First year)	22,050 × £193 = £4.3m
Thereafter	22,050 × £118 = £2.6m

Costs to the UK of death and injury from continued use of DCM-based paint strippers

It is stated that the major benefit of restricting the use of DCM-based paint stripper will be the elimination of fatalities and injuries and their associated costs to society. DCM-based paint strippers account for approximately 90% of the EU market of chemical stripping products. A ban on consumer and professional use would force users into using chemical and non-chemical alternatives which have not been studied to the same extent as DCM and where the human-health and safety risks are less well understood. As a consequence we cannot be certain that there will be an overall decrease in the fatality and injury rate for paint stripping tasks. It is possible that the rate could increase from the current position.

Measures to promote good practice in industrial premises may result in a reduction in fatalities and injuries.

Over the 18 year reference period used by the European Commission, in the UK there have been:

- No consumer fatalities
- 6 consumer injuries
- 1 professional fatality
- 12 professional injuries
- 4 industrial fatalities
- 4 industrial injuries

Total health impact on average = 0.3 of a life per annum and 1.2 injuries per annum

Using the UK's value for preventing a fatality of £1,435,000 and the cost of a minor injury of £350, the average cost for death and injury, from continued use of DCM-based paint stripper would be:

Consumer use:

0.33 of an injury per annum = £115

Professional use:

0.055 of a life per annum = £79,700

0.66 of an injury per annum = £231

Industrial use:

0.22 of a life per annum = £315,700

0.22 of an injury per annum = £78

⁵ UK Labour Force Survey 2007

Total cost to the UK of 0.3 of a life and 1.2 injuries per annum would be £431,000

SUMMARY

Ban on consumer and professional use

The proposed ban on the sale of DCM-based paint strippers to professional and consumer users is disproportionate to the risks to these users. Preliminary estimates of the proposed ban suggest the cost to the UK would be at least approximately £4.6m to £20m per annum against a benefit saving £80,000 per annum (based on 1 fatality and 18 injuries every 18 years if all fatalities and injuries were eliminated).

Licensing

Assuming that only 15% of all professional painters and decorators in the UK took part in the proposed training to obtain a licence the cost to those professionals in lost time alone would be £4.3m for the first year and £2.6m per annum for each year thereafter, against a benefit saving of £80,000 per annum (based on 1 fatality and 12 injuries of professional users every eighteen years if all fatalities and injuries were eliminated).

The cost to the UK of setting up a national licensing system and the administrative costs of running such a scheme have not been calculated. It is possible that the costs of the scheme could be recovered by charging a fee, but this additional cost to business has not been estimated.

Lack of mutual recognition of licences: The cost to the UK of professional painters and decorators being unable use their licences across the EU has not been calculated.

Industrial workplace controls

The Commission's proposals for industrial workplace controls (other than licensing) would reinforce the existing general requirements concerning solvent emissions and the control of substances hazardous to health. The proposed measures would also complement HSE's existing good-practice guidance for industry, for example on "Health risks during furniture stripping using dichloromethane". This Preliminary Impact Assessment does not yet outline costs of the proposal for industrial use, but as the proposed measures reflect the baseline, costs are not expected to be significant. The issue would be whether the proposed new specific requirements improved current levels of compliance.