

European Economic and Social Committee

INT/157

**Dangerous
substances/nonylphenol and
cement**

Brussels, 26 March 2003

OPINION

of the European Economic and Social Committee
on the

Proposal for a Directive of the European Parliament and of the Council relating to restrictions on the marketing and use of nonylphenol, nonylphenol ethoxylate and cement (twenty-sixth amendment of Council Directive 76/769/EEC)

COM(2002) 459 final - 2002/0206 (COD)

On 13 September 2002 the Council decided to consult the Economic and Social Committee, under Article 95 of the Treaty establishing the European Community, on the

Proposal for a Directive of the European Parliament and of the Council relating to restrictions on the marketing and use of nonylphenol, nonylphenol ethoxylate and cement (twenty-sixth amendment of Council Directive 76/769/EEC)

(COM(2002) 459 final – 2002/0206 (COD)).

The Section for the Single Market, Production and Consumption, which was responsible for preparing the Committee's work on the subject, adopted its opinion on 5 March 2003. The rapporteur was **Mr Nollet**.

At its 398th plenary session (meeting of 26 March 2003) the European Economic and Social Committee adopted the following opinion by 83 votes in favour, with 3 abstentions.

1. Introduction

1. The EESC took note of the gist of the Commission document and its annexes, noting in particular the impact analysis which had been made.
2. The EESC carried out searches of databases with regard to the toxicity of nonylphenol, nonylphenol ethoxylate and cement and their various uses in the manufacture of very many products.
3. The Proposal for a directive of the European Parliament and of the Council relating to restrictions on the marketing and use of nonylphenol, nonylphenol ethoxylate and cement (twenty-sixth amendment of Council Directive 76/769/EEC) has been drawn up under the heading "Dangerous substances: nonylphenol and cement".
4. For the sake of clarity, the EESC thought it desirable to deal with the two aspects separately, i.e. firstly nonylphenol, and secondly cement as regards chromium content and effects on health and in terms of allergic reactions in certain circumstances.
5. The employers' and trade union federations of the chemical, building and cement industries were consulted.

2. Nonylphenol and nonylphenol ethoxylates

2.1 Introduction

1. Nonylphenol (NP) is used mainly as an intermediate product in the production of nonylphenol ethoxylates (NPEs) and resins. Nonylphenol is also used as an intermediate product in producing a plastic additive (TNPP) which is used as a stabiliser in certain polymers such as polyethylene and PVC. Nonylphenol is never used as such in consumer preparations or applications.
2. The ethoxylates of nonylphenol (NPEs) form a category of chemicals often used as "detergents" and maintenance products in many industrial processes. They are also used in the production of wallpaper pastes, natural and synthetic textiles, and leather. In addition, they are used as additives (emulsifiers) in latex paints and in certain pesticides. In Europe, nonylphenol ethoxylates have been used for some years now in common household cleaning and personal toiletry products, such as

liquid detergents for washing dishes, general cleaning products, soaps and shampoos.

3. Most NPEs are discharged into sewers where they decompose into nonylphenol, an extremely toxic by-product.
4. A very interesting study of nonylphenol and its ethoxylate derivatives can be accessed on the Internet site of a Canadian research institute (<http://www.ec.gc.ca/substances/ese/eng/psap/final/npe.cfm>) - Environment Canada.
5. Some questions were put to economic, social and scientific circles on the possibility of totally or partially withdrawing nonylphenol from the market. The reply was that nonylphenol is used as an antioxidant in making certain polymers such as polystyrene and PVC, but is also and above all used in nonylphenol ethoxylates which have a wide range of uses. The latter are not toxic in themselves, but end up in sewers where they break down and release nonylphenol, which pollutes the environment.
6. Nonylphenol ethoxylates can be replaced with alcohol ethoxylates (non-ionic surfactants) or sulphonates of linear alkylbenzene, alkyl sulphonates, ether alcohol sulphates (anionic surfactants) or betaines (amphoteric surfactants). These surfactants are more difficult to synthesise and especially difficult to obtain in a very pure state (high cost). To obtain the same properties as those of nonylphenol ethoxylates, the industry sometimes needs to use several surfactants, incurring a higher cost.

It should be emphasised that, according to the spokesperson for CEFIC (European Chemical Industry Council), substitute products exist, but not for all preparations.

2. Health risks

1. Nonylphenol has a marked corrosive effect on the skin.
2. The EESC asked the Commission representatives to make available to it, if possible, European-level statistics covering preventive measures in the Member States, and where appropriate covering compensation for occupational diseases. The EESC has not received the information requested, which is not available in Eurostat either. By way of example, in Belgium nonylphenol is mentioned in the list of occupational diseases under heading 1.123.01 (phenols or similar substances). For nonylphenol in particular, it has not been possible to ascertain whether there are any compensation claims. For the *phenols or similar substances* heading the figures for Belgium are 4 claims submitted in the three years from 1999 to 2001, and 3 claims for review in the same period.

3. Opinion of the chemical industry (CEFIC)

1. The chemical industry employers' federation takes the view that the draft directive is the result of an analysis and evaluation of risks under Regulation 793/93/EC. Producers of NP/NPEs have made their position known on the Internet site <http://www.cefic.org/cepad>.
2. The enterprises concerned take the view that this directive poses no problem for them.

2.3.3 CEPAD (the European Council for Alkylphenols and Derivatives) has submitted its views on the question.

2.4 The EESC's opinion on nonylphenol and nonylphenol ethoxylates

2.4.1 The EESC agrees that the Commission needs to reconcile economic and social imperatives, the protection of workers' health in terms of a policy of prevention and, where necessary, compensation for occupational diseases, and a concern for environmental protection; it takes the view that the present proposal for a directive of the European Parliament and of the Council responds to these concerns.

3. Chromium VI in cement

3.1 Introduction

3.1.1 The draft directive of the European Parliament and the Council, and scientific studies, have shown that cement preparations containing chromium VI can induce allergic reactions in certain circumstances, if they come into direct, prolonged contact with the skin. The CSTEE (the European Commission's Scientific Committee on Toxicity, Ecotoxicity and the Environment) confirmed the adverse effects on health of the chromium VI contained in cement.

3.1.2 In the draft directive in question, the Commission suggests that, in order to protect human health, it is necessary to restrict the marketing and use of cement and cement preparations containing more than 2 ppm of chromium VI. Use will have to be limited for manual work where there is a risk of contact with the skin.

3.1.3 Chromium and soluble chromates are used in ferrochromium alloys, in electronic chromium-plating for anti-corrosion surfaces, in the manufacture of (bi)chromates for pigments, in tanneries, as pesticides, in welding (chromium-based alloys), in fireproof bricks, as mordants in dyeing processes, in photoengraving and in wood processing. Cement generally contains chromium. It is mentioned in the list of occupational diseases under the heading "sinus".

3.1.4 It is possible to reduce the presence of hexavalent chromium in cement either by using raw materials with a low chromium content (this is not a simple matter, since cement-makers extract raw materials from deposits close to the factory) or by adding ferrous sulphate to the

clinker to reduce hexavalent to trivalent chromium (insoluble). It is worth stressing here that this is only effective for a limited duration, as ferrous sulphate is not a stable substance.

3.1.5 For welding purposes, hexavalent chromium can be reduced to trivalent chromium by adding zinc to the welding alloys.

3.2 Health risks

3.2.1 Chromium VI is dangerously carcinogenic by inhalation. The organs affected are the lungs and the facial sinuses.

3.2.1.1 In cement, when wet, chromium VI is also a skin irritant (chromate eczema). This is also true of chromium III.

3.2.2 The EESC has not found European-level statistics on this (or on nonylphenol). Given this lack of data, it is practically impossible to obtain a full picture of the situation in the various Member States, and this is an obstacle to developing a true prevention policy.

3.2.3 By way of example, in Belgium hexavalent chrome appears in the list of occupational diseases under heading N° 105 (chromium or its compounds).

3.2.3.1 For the three years from 1999 to 2001, 117 claims for recognition of an occupational disease were submitted, along with 21 claims for review.

3.2.4 Even in the mechanised use of cement, mortar or concrete, final work often has to be done by hand (fitting of links, corners, staircases etc.). Research in Germany has shown that about 16% of all work with cement has to be done manually.

3.2.5 A reduction in this percentage seems unlikely. Even for those 16%, chromium VI concentration and hence the likelihood of developing eczema must be minimised.

3.2.6 As a result, the Commission proposal should seek to amend the relevant paragraph of Annex I of Directive 76/769/EEC to read as follows: "May not be placed on the market or used as a substance or constituent of preparations, if it contains more than 0.0002 % soluble chromium VI of the total dry weight of the cement, for **all** activities, where there is a risk of contact to the skin."

3.2.7 As the contributions of the French cement industry trade union, and of CEMBUREAU (European cement sector) in particular, confirm, it should be emphasised that no-one questions that users coming into contact with cement can suffer from skin complaints for many reasons.

3.2.8 The Scandinavian countries, for example, have considerable experience in the use of cements with a low soluble chromium content. Since the 1980s these countries have been restricting the use of cements containing more than 2 ppm of chromium VI. As a result, the working conditions of users handling cements have improved considerably. This experience has also shown that the addition of ferrous sulphate does not involve any technical difficulties, and that the quality of the cements is not affected by it.

3.2.9 The EESC emphasises the importance of information, particularly for non-professional users. Without prejudice to the application of other Community provisions on classification,

packaging and labelling of dangerous substances and preparations, the packaging of cement must carry legible information on the date of packaging, storage conditions and the storage period during which the soluble chromium VI content is below 0.0002 % of the total dry weight of the cement.

This information for consumers should stress the advisability of using gloves when handling cement directly.

3.2.10 CEMBUREAU has made available to the EESC extensive documentation and the available statistics.

3.3 The EESC's opinion on chromium VI and cement

3.3.1 On the basis of the information obtained, the EESC draws attention to four points:

- 1) the need for the cement sector not to view the debate in purely economic terms and for it to confirm its wish to cooperate in achieving a lasting solution;
- 2) the users, i.e. the concrete and construction sectors, have not been sufficiently consulted by the Commission;
- 3) this also applies to the European social organisations for those sectors;
- 4) as noted in the CEMBUREAU document, the CEN (European Committee for Standardisation), on the initiative of European cement producers, has begun to develop a common standard for determining the soluble chromium VI content of cement.

3.3.2 The EESC notes that CEMBUREAU has commissioned an epidemiological survey of available data on cement-related dermatitis to be carried out by an independent expert (National Institute of Occupational Health (NIOH), Oslo, Norway).

The results of this survey will be made available to the EESC at the time of their publication (planned for April 2003).

3.3.3 The EESC thinks it desirable to acquaint itself with the conclusions of this survey before adopting a final position, and reserves the right to return to the matter in a possible new opinion.

3.3.4 The EESC would like to be informed of any amendment which may be tabled by the Commission.

3.3.5 The EESC intends, within a limited timescale, to encourage structured consultation between the social partners in the sectors concerned.

3.3.6 The EESC notes that CEMBUREAU has said it maintains contacts with ERMCO (European association for ready-to-use concrete), BIBM (International Bureau for Precast Concrete), FIEC (European Construction Industry Federation) and EFBWW (European Federation of Building and Woodworkers in the EEC) to develop a complete approach to the question of workers' health.

3.3.7 A convention between the parties designed to guarantee health protection for people coming into contact with cement would be highly desirable, and would be likely to make an important contribution, on the part of the social partners concerned, to the draft directive under discussion; as a result, its adoption and its implementation by the Member States would be made easier.

Brussels, 26 March 2003.

The President

The Secretary-General

of the

of the

European Economic and Social Committee

European Economic and Social Committee

Roger Briesch

Patrick Venturini

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